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ABSTRACT

These papers were collected from participants at a conference on young children, adults, and music. Papers include: (1) "Preschool Children's Responses to Music on Television" (Katharine Smithrim, Canada); (2) "Learning to Observe in Order to Join the Musical Activities Better to the Total Development of the Young Child" (Margre van Gestel, The Netherlands); (3) "Classroom Music for Non-Music Major Students in Kindergarten Teacher Training Fostering a Positive Attitude for Enjoyment of Music with Young Children" (Atsuko Omi, Japan); (4) "Emotional Growth through Musical Play" (Mary Stouffer, Canada); (5) "Action Research--Getting Involved" (Olive McMahon, Australia); (6) "Music as Mediator Element in the Mother-Baby Relationship" (Josette Silveria Mello Feres, Brazil); (7) "A Model for Enhancing Music Development Through the Inclusion of Informed parents and Other Primary Caregivers in Early Childhood Music Classes" (Kenneth K. Guilmartin and Lili Levinowitz, USA); (8) "Music in Early Childhood: The Search for Effective Models of Adult Participation and Interaction" (Carol Scott-Kassner, USA); (9) "Training of Early Childhood Music Educators at the Musical University in Heidelberg-Mannheim/Germany" (Maria Seeliger, Germany); (10) "Developing the Educational Connections in the Swedish Preschool: How Do We Integrate the Theories with Musical Practice?" (Berit Udden, Sweden); (11) "Effect of Pitch Relationship Between Text and Melody in Young Children's Singing" (Lily Chen, Hong Kong); (12) "Some Observations on the Singing Development of Five-Year-Olds" (Peta J. White, Desmond C. Sergeant, Graham F. Welch, England); (13) "Cross-Cultural Perspectives on Preschool Children's Spontaneous Music Behaviors" (Danette Littleton, USA); (14) "Using Jack Tales and Folk Music from Our American Appalachian Heritage to Involve the Young Learner, Including Those with Special Needs" (An Integrated Arts Approach Employing Folk Music, Folktales, and Puppets)" (Michelle Hairston, Linda High, USA); (15) "Doing What Comes Naturally: Generating A Music Curriculum for Young Children" (June Boyce-Tillman, England); (16) "Sound Mosaic: Young Children's Musical Development Program" (Eleonora Rybakova, Nikolai Kravtsov, Russia); and (17) "The Window of Opportunity" (Sheila C. Woodward, Republic of South Africa). (EH)

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INTERNATIONAL SOCIETY FOR MUSIC EDUCATION
EARLY CHILDHOOD COMMISSION SEMINAR

Vital Connections:
Young Children, Adults & Music

11-15 July, 1994

Memorial Union/Mark Twain Ballroom

University of Missouri-Columbia

Columbia, Missouri, USA

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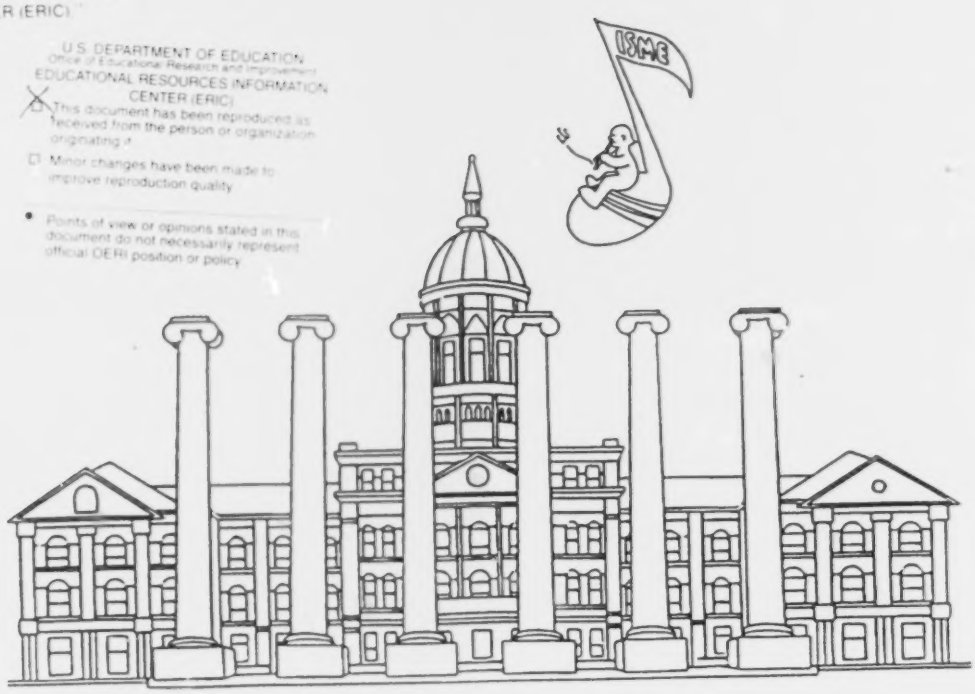

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International Society For Music Education Early Childhood Commission Seminar:

Vital Connections: Young Children, Adults & Music

July, 1994 - University of Missouri-Columbia, USA

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Mary Stouffer (Canada): Emotional Growth Through Musical Play

Olive McMahon (Australia): Action Research - Getting Involved

Susan M. Tarnowski (USA): Musical Play of Preschoolers and the Effects of Teacher-Child Interaction Style on Those Behaviors [Not Available for ERIC reproduction

Josette Silveria Mello Feres (Brazil): Music As Mediator Element in the Mother-Baby Relationship

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Sheila C. Woodward (Republic of South Africa): The Window of Opportunity

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Preschool Children's Responses to Music on Television

by
Katharine Smithrim

Abstract

Television is an important, yet previously unexamined factor in most children's preschool music experience. This multiple case study was designed to (a) determine whether particular kinds of televised musical stimuli elicit certain types of responses in young children, (b) show how the home music environment affects children's response, and (c) examine the effect of an involved adult co-viewer on children's response.

The investigator videotaped four children at home as they viewed a Canadian preschool television programme. Parent interviews provided background information about each child's musical experience and home musical environment. Analyses of the musical segments served as the base for the examination of each child's response. The four case descriptions were compared in order to determine emergent response patterns.

Active responses occurred when features appropriate to the level of musical development of the child were present in the musical material and presentation. Critical factors in eliciting active response were (a) repetition of simple words, lyrics, melody lines and tunes; (b) enticing introductions; and (c) invitations to participate. Home musical environment affected the level and performance of musical skills. The presence of an adult resulted in increased response.

Katharine Smithrim, Assistant Professor of Music Education,
Faculty of Education, Queen's University, Kingston, Ontario, Canada. K7L 3N6.

This paper is submitted for consideration for the Seminar
'Vital Connections: Young Children, Adults & Music' 11-15 July, 1994.

Preschool Children's Responses to Music on Television

Television is an important factor in a child's preschool experience. Canadian figures indicate that children between the ages of two and 12 watch an average of 18.8 hours of television per week (Statistics Canada, 1991). Many children's programmes feature music as an integral part of the program content. All children's programs and commercials use music as a formal feature: as background music, as an element in dramatic tension and release, or as a signal for the beginning and ending of programs and for sections within those programmes. While other musical experiences including records and tapes, family music making, music classes and concerts may be important factors, television provides a considerable portion of a child's early musical involvement.

> Real musical experiences are embedded in rich social and personal context. If we wish to understand more about how musical meanings are acquired, we need to turn to the everyday real-life acts of musical involvement that make up a child's musical life. (Sloboda, 1990, p.34)

Television viewing is one of these everyday real-life acts of musical involvement and yet, it has not been addressed by music educators or researchers. This study investigates the response of four-year-old viewers to the musical content of preschool television. It opens an important new field of research which concerns children's musical experience through television. The research literature in two subject areas is relevant to the scope of this study: children's television and early childhood musical development.

The context in which children watch television affects their attention and response (Anderson & Bryant, 1983; Anderson, Lorch, Smith, Bradford & Levin,

1981; Lorch, Anderson & Levin, 1979; Sloboda, 1990; Sproull, 1973). Parental knowledge of their child's normal viewing behaviour can be a helpful verification or refutation of research findings regarding their child's response (Sproull, 1973; Sims, 1985). The semiotic approach of Hodges and Tripp (1986) suggests that different levels, modes and social dimensions of children's response to television must be taken into consideration. In order to study children's response to music on television, it is therefore important to (a) observe children watching television in their normal viewing environment, (b) examine all types of responses, and (c) use parental knowledge to validate or refute findings.

The stage of musical development in young children affects their musical behaviours (Davidson, McKernon & Gardner, 1981; Moog, 1968/1976; Rainbow, 1981). The home environment can be a significant factor in a child's level of musical development (Gordon, 1967; Kelly & Sutton-Smith, 1987; Kirkpatrick, 1962). Characteristics of musical material and modes of presentation affect children's response (Davidson, McKernon & Gardner, 1981; Moog, 1968/1976; Rainbow, 1981; Vaughn, 1981; Walters, 1983). The teacher's modelling behaviours and modes of presentation affect children's movement response (Metz, 1989). In interpreting children's response to music on television; the stage of the child's musical development, the characteristics of the musical material presented, and the modes of presentation must be taken into consideration.

The research questions formulated to guide this study concern children's response to music on preschool television, and the factors which affect their response.

1. Do particular kinds of televised musical stimula elicit certain types of responses from young children?
2. How does the home musical environment affect children's musical response?
3. In what ways does the presence of an involved adult affect the children's musical response?

Design of the study

The literature suggests that the context of children's television viewing greatly affects the children's response. Since "real musical experiences are embedded in rich and personal context" (Sloboda, 1990, p. 34) it was important to choose a research design which addresses context. A case study, as defined by Yin (1989) is "an empirical inquiry that: (a) investigates a contemporary phenomenon within its real-life

context; when (b) the boundaries between phenomenon and context are not clearly evident; and in which (c) multiple sources of evidence are used" (p. 23). This multiple case study design evolved through an initial trial and a pilot case study.

I videotaped four children at home as they viewed the same three programmes of Fred Penner's Place, a Canadian TV programme designed for preschoolers and centred on music. The four children were regular watchers of Fred Penner's Place and represented a wide range in musical experience and environment. Parent interviews and observations of the child provided background information about the child's musical experience, and the home musical environment. In each case study, written transcripts of the programmes and the analyses of the musical segments served as the base for the examination of the child's response. The analyses of the musical elements of the program include the type of song, its key, range, melodic outline, tempo, metre, accompaniment, and other components such as sound effects, actions, repetition, and modes of performance. The child's responses to each music segment were analysed and recorded on a response form. Because the soundtrack of the television programme is audible on the videotapes of the viewing child, I was able to match responses exactly with the stimulus. Six categories of responses emerged. I constructed a graph for each programme which showed the time in minutes, the songs, and the six categories of response: keeping the beat, performing modelled actions, whole body movement, singing, visual attention and visual inattention. The data from the response forms was transferred onto the graph (Figures 1,2&3). The graphs of each programme revealed the emerging patterns of response. In the cross case analysis, emergent patterns of response in the pilot case were tested across each ensuing case. The effects of the home musical environment and the presence of a co-viewing adult were also considered across the four cases.

Conclusions and discussion

1. Four year old children respond to the music on Fred Penner's Place in several ways. They keep the beat by bouncing, banging, tapping and jogging. Whole body movement like dancing, jumping and running is sometimes metrical, and sometimes non-metrical. When a co-viewer is present, children frequently respond verbally to song material. They rarely sing. The most frequent response to the musical segments of the programme is visual inattention. Children tend to look away from the screen during songs. (VIDEO ILLUSTRATION)

2. Certain musical features and presentation modes do elicit particular types of response. Children physically keep the beat of songs which have a quick tempo (M.M.= 100-120), strong rhythmic pulse, simple four phrase melody, and repetition of words and tunes; and when the performer keeps the beat and invites the viewer at least twice to participate. Whole body movement occurs during songs which are about dancing and movement (e.g. Doing the country hop, hop, hop), have a quick tempo, and involve repetition of words and tune; and when the performer models whole body movement and invites the viewer to do the same (VIDEO ILLUSTRATION). Children sing parts of songs that contain repetition at all levels: single words, whole lines of the lyric, melodic phrases, entire tunes and choruses and refrains. In some cases, the children had seen the particular programme several times which makes external repetition another factor (VIDEO ILLUSTRATION). The common pitch range of the sung songs is C4-B4. There is no modelling of movement by the performer during any of the songs the children sing. Several characteristics are present in songs which attract and maintain visual attention: enticing spoken introductions, spoken narrative embedded in the song, simple verse and chorus form, the absence of modelled actions or movement, and placement as the opening song on the programme. The children do not watch musical segments with a relatively slow tempo (M.M. 56-96) or with long verses of complex lyrics. The songs which neither attract or maintain visual attention lack enticing introductions and invitations to participate. Factors which do not affect response in this study are the type of accompaniment present onscreen or offscreen and sung harmony.

3. These findings are consistent with expected musical behaviours of four-year-old children. Four-year-olds respond to particular features of music on television in the same ways they respond to the same features in live music. Keeping the beat and whole body movement occur at quick tempi because the children's bodies are small and they make short, quick motions. Walters (1983) determined that the closer the music's tempo was to the children's personal tempi, the easier it was for children to coordinate movement to the music. Metz (1989) reports that modelling, describing and suggesting in combination have considerable effect on children's movement response to music. Modelling and suggesting, the two of these adult behaviours possible in television, are present in the musical segments which elicit keeping the beat and whole body movement responses. Young children learn new skills through self-selected repetition (e.g. building a block tower) and repetition is a critical factor in rote learning. Repetition of words, lyrics, melody lines and tunes is a factor in eliciting

all patterns of response excluding visual inattention. The pitch range common to preschool children is C4 or D4 to G4 or A4 (McDonald and Simons, 1989). The children in this study sing only the songs that lie within the pitch range of C4-B4.

4. The home music environment plays a role in the children's response to the music. Although all the children demonstrate many of the same musical skills, the two children from the more musical households do so in creative combinations of several skills at once. For example, one child sings parts of the song, physically keeps the beat, demonstrates the end of musical phrases with whole body movement, and vocally improvises rhythm, melody and harmony during one song. This kind of creative and confident synthesis of well developed musical skills is not present in the response of the children from the less musical home environments. (VIDEO ILLUSTRATIONS)

5. The presence of an involved adult co-viewer alters children's response in several ways. When children watch preschool television with an involved adult, they talk frequently, consistently share smiles and glances at funny or surprising moments, imitate the adult's body movement and sometimes begin to sing if the adult does. The presence of a familiar adult co-viewer does not affect the children's visual attention to the programme. If the adult co-viewer is a non-unfamiliar adult, attention-getting behaviour and decreased visual attention result.

Recommendations for further study

This study shows that children's attention and physical response are more likely to be engaged if features appropriate to the level of musical development in the young child are present within the musical material and presentation. Some additional questions need to be addressed to provide an accurate measure of children's musical experience gained from television:

1. What is the musical content of children's television programming in general?
2. How does that musical material correspond to early childhood musical development?
3. What are the musical learnings that children are gaining from television?

The significant question for me is "What <u>could</u> children learn musically from television?" This study shows that television is an effective and powerful medium for involving children in musical experiences. Music on television can get children up out

of their chairs to move and dance and sing and play. Producers of children's television have recognized the importance of music for children and have taken a first step by including music in most children's programming. We need to take the further step of ensuring that the best of our knowledge of children's musical development and of children's response to television is reflected in the music within children's programming. Music educators and producers of children's television could work together to enrich the lives of our children by providing developmentally appropriate, active and delightful early musical experiences.

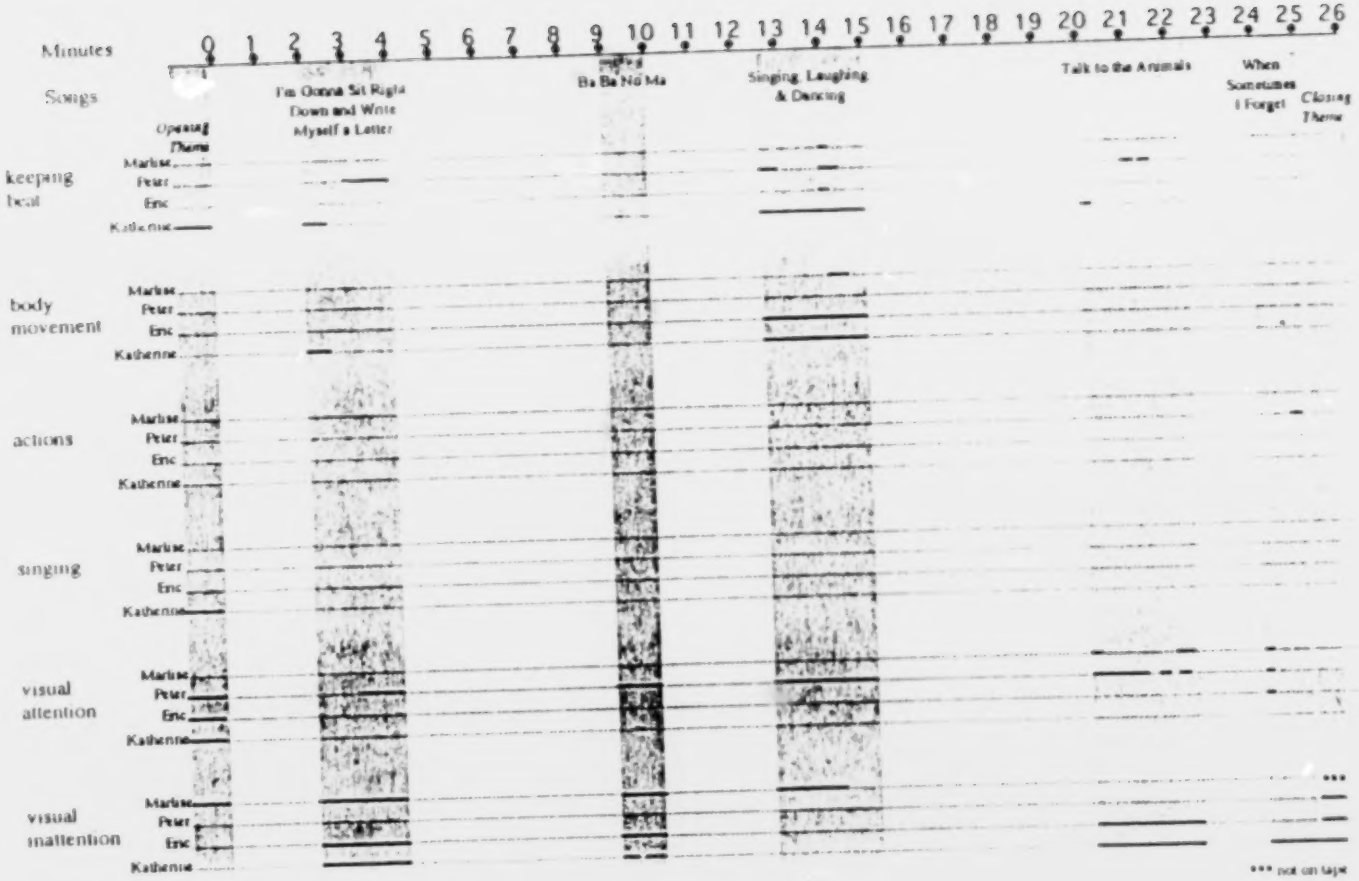

Figure 1. Children's response to the musical segments of Walkie Talkie

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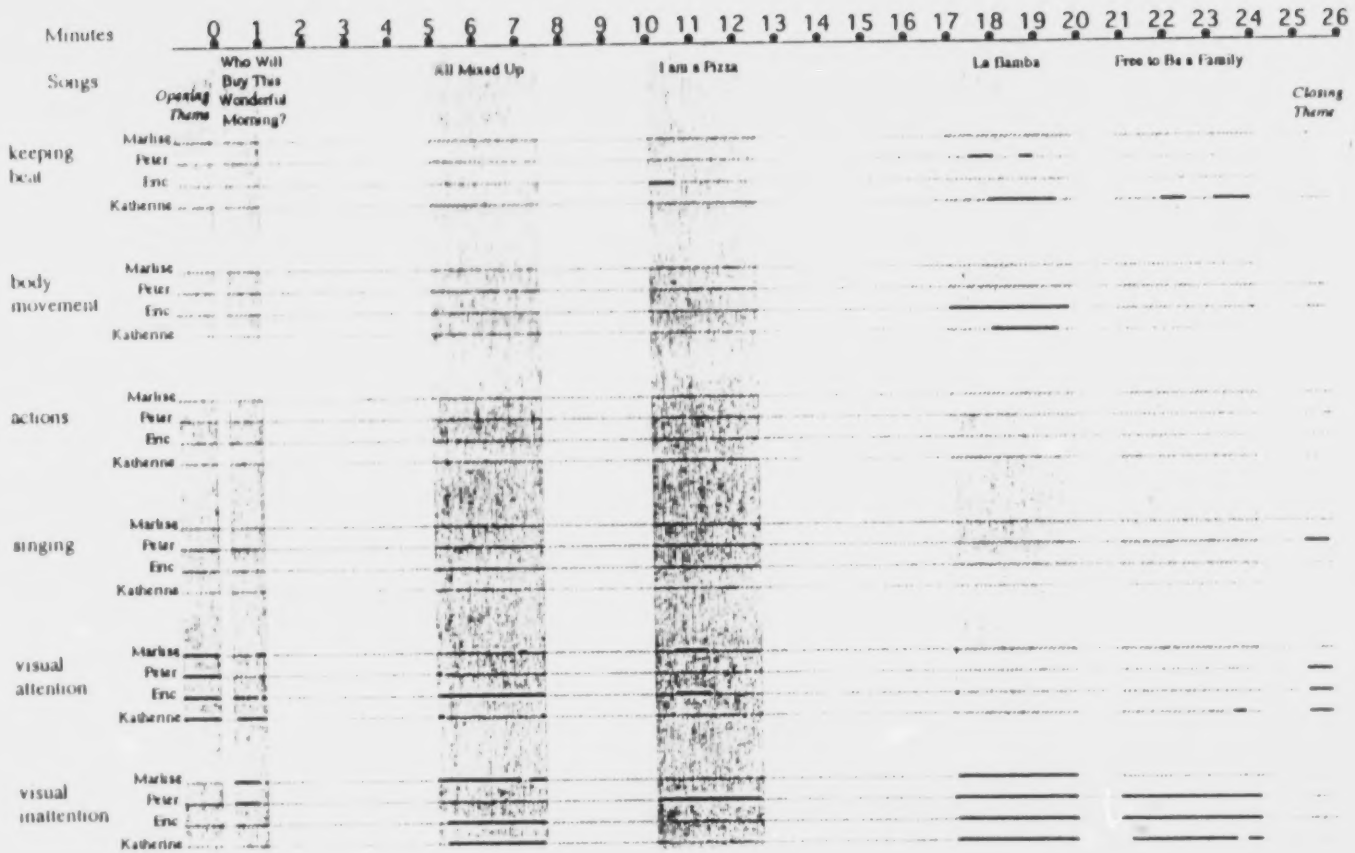

Figure 2 Children's response to the musical segments of Picnic

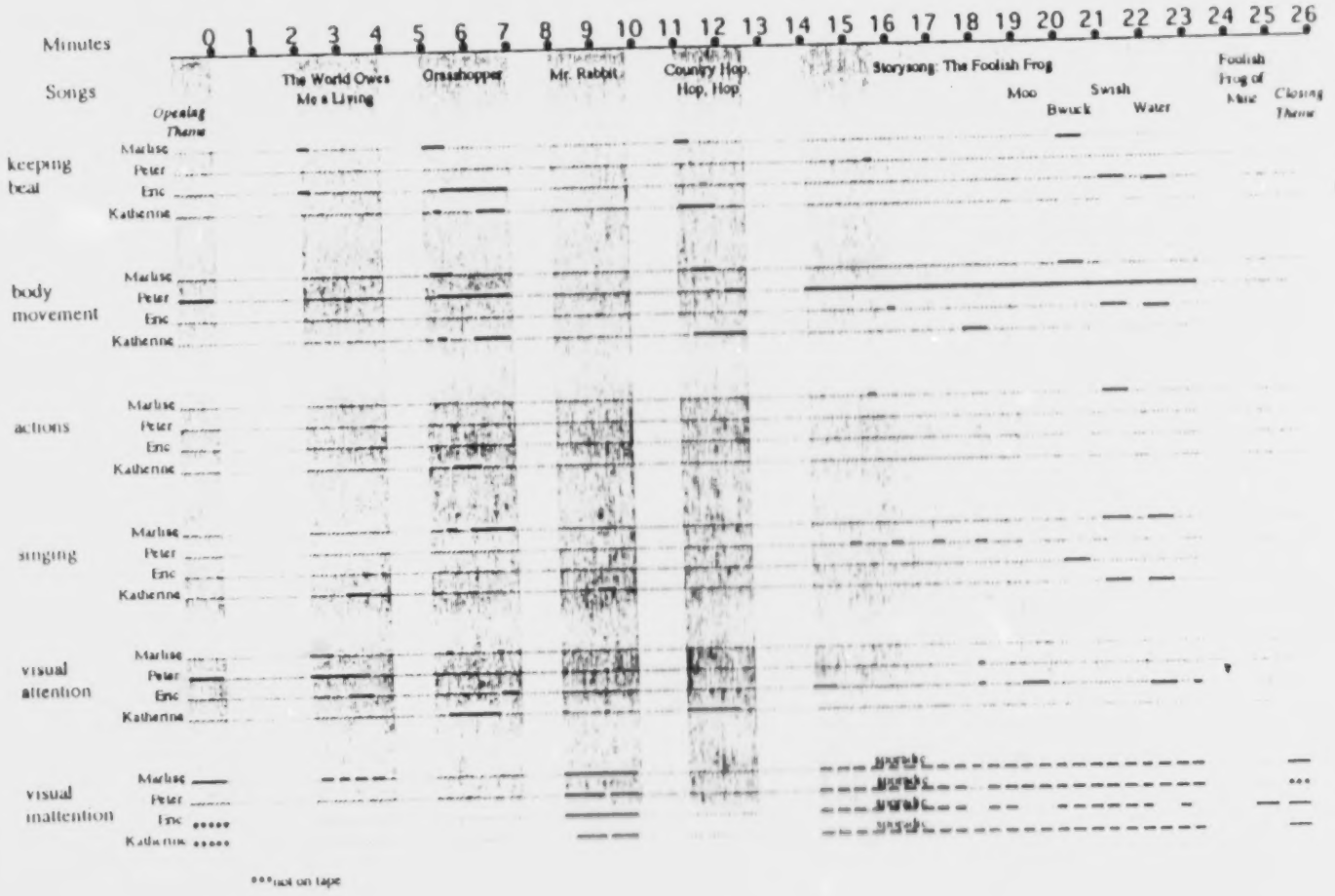

Figure 3. Children's response to the musical segments of Magic

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Margré van Gestel
Foundation for Toddlers and Music
Specialist in "Music on the Lap".
De Meerkoet 1
2761 SM Zevenhuizen
The Netherlands

This Paper is submitted for consideration for the seminar
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Learning to observe
in order to join the musical activities better
to the total development
of the young child.
(0 to 4 years)

Margré van Gestel
Foundation for toddlers and music
Specialist in "Music on the Lap"
De Meerkoet 1
2761 SM Zevenhuizen
The Netherlands

"Learning to observe in order to join the musical activities better to the total development of the young child (0 to 4 years)."

(abstract)

Good music teaching asks for knowledge of music, music teaching and musical development. Good music teaching to young children (0 to 4 years) asks also for knowledge of and insight in the areas of development and the stages of development.
It appears to be of great importance that the observational ability of the teacher is good.
This paper tries to enlarge the theoretical knowledge of observation and shows some observation assignments used in the supplementary course "Music on the Lap" and in music training courses for nursery teachers.

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Introduction:

Good music teaching to young children (0 to 4 years) asks for knowledge of music, music teaching and musical development, but also for knowledge of and insight in the areas of development and the stages of development.

It appears to be of great importance that the observational ability of the teacher is good.

In practice, observation seems to be a skill that requires far more training than one expects.

The topic of this paper is "Learning to Observe."

Preamble

During the conference in Japan 1992 you may have become acquainted with the procedure "Music on the Lap".
The starting and focus points of "Music on the Lap" are probably not familiar to everybody. As they are of great importance in learning to observe and linking the musical activities to the development of the young child, they are summarised briefly below.

A

Starting Points:

1. Young children are human beings too, so have to be taken seriously and dealt with in a respectful way.
2. The child is the focus. Music is an integral part of its life.

Focus points:

- Approach
- Comfort
- Support in the centre of the body
- Physical activities in relation with the physical development.

Approach:

A respectful attitude of the teacher especially in the approach to the children.

The zones of distance:

- The intimate zone is at elbow length.
- the personal zone is between 50 and 75 cm.
- the social zone is between 75 cm to approximately 2 meters.
- the public zone is from 2 meters onwards.

If the zones of distance are not taken into consideration and the teacher comes too close too soon, the child (or adult) tries to enlarge the distance or freezes. This behaviour should be allowed for and respected.

Comfort:

No effect but affect. To promote a positive relationship is of

great importance. Parents should feel comfortable too, especially during improvisation.

Support in the centre of the body:

Simple songs are used as a framework for improvising movements. The movement chosen by the parents must fit the physical capabilities and the age of the child. Knowledge of the physical development and of giving support in the correct way is of great importance.
Relaxation exercises are based on moving a child when it is laying on the lap, in a manner that parent and child form an imaginary circle.

The areas of development:

We distinguish between emotional, physical, sensory, social, intellectual, speech and musical development.
For the harmonious development of the child it is important to ensure that due attention is given to each of the elements, including during music lessons.

B

What is observation?

Observation can be described as follows:
Observation is watching the behaviour of young children with the intention of getting to know the child through its experiences with the (music) world. *1

In our surroundings and in our teaching practice we see things happen. We have to react. However to react in a proper way requires knowledge. In teaching practice it is difficult to observe correctly. One of the causes is that observation requires a certain distance, but working with children brings one both literally and figuratively too close.

Furthermore, time is needed both for observation and for processing the information obtained.
One of the problems during observation is that people project their own feelings to others via their behaviour.
For instance, projecting one's own negative qualities to another person reduces one's own unpleasant feelings.
This is a frequent cause of mistakes in judgement whilst carrying out observations.

It is clear that observation should be a method of gaining information as objectively as possible in order to better understand the behaviour of another person.

An important condition for successful observation is a certain

consistency in watching .

Training and experience is necessary for creating this consistency. Only in this way can a manner of observation be created which is reliable, repeatable and as objective as possible.

Observation will always be selective, because it is impossible to give attention to everything. However, selective watching should be tied to certain rules. *1

With the help of the information gained teachers can optimise their understanding of a child and hence guide the child as well as possible.

Ways of observing.

In different social sciences observation is used as a controlled way of watching.

1. The principles of scientific observation are well known.
2. Central in a specific pedagogical observation is the relation between the adult educator and the half-grown child entrusted to him. *2
3. In a psychological observation, a psychologist only seeks to observe the development of the child by researching the different areas where this development manifests itself. *2

   For instance, mental, physical, emotional, personality structure, motivation, development agreement of behaviour with age.

4. The purpose of a more didactic observation is to trace all the possible causes which lead to teaching problems.

By systematic observation and relating the observations to the areas of development and musical activities, we learn to link musical activities better to the needs of the child.
It is of great importance that the observer has knowledge of the development process of the young child. One of the failings of observation can be that behaviour and motivation patterns which are characteristic of a certain age group are not recognised by the observer.

Observation techniques related to enlarging the knowledge of musical activities which are linked to the development of a child, can lead to responsive observation. Responsive observation is a direct reaction to the childs behaviour.
The importance for our teaching is obvious: the child is motivated and experiences that new things can happen through its own activities. Learning which results from this kind of observation begins with the child!

The purpose of Reporting.

Reporting is recording what we want to observe and what we have observed in such way that the results can be objectively used. A report should be a pure recording of what happened and may not contain an interpretation.
Watching the development of the child becomes meaningful when

it is related to established criteria.

Reporting of development takes as a basis two essential criteria:

1. The sequence of development is the same for each child.
2. The point of time at which skills are obtained is different for each child. *3

Examples of reporting methods are transcripts, audio or videotapes, films and photographs. There is also a form of reporting which requires interpretation: the protocol.
A protocol is a precisely written or taped description of what has happened.
Before choosing the method of reporting one must decide whether to observe conspicuously or surreptitiously.
Conspicuous observing by means of video, photo or an obvious observer, sometimes creates different behaviour which must be allowed for.
When we exactly know what to observe we can record the data using category systems.

Category systems:

When we observe there are certain things we are paying attention to. For instance: Which songs children sing when they are playing. We can speak of a system when we have a collection of categories which meet certain requirements. For instance: All songs sung during jumping.

C

Learning to observe by means of target observation exercises.

The observation exercises.

We use different types of exercises:

A: Observation by means of actual exercises.

B: Observation by way of photographs, slides or videos.

Selected exercises are included in this paper as it is impossible to give an example of all the exercises in the space available. Two exercises of type A and 3 of type B are included.

Aspects to take into account when working with young children.

Next to observation training the following aspects are of great importance working with young children and music:

- A clear insight of how to associate with young children: approach, comfort, supporting while carrying, method in musical activities, the place you give the parents during the lessons. All these items should be dealt with.
- Theoretical knowledge of child development.
- Knowledge of observational procedures.
- Linking the correct musical activities to the stage of

development of the child.

Much attention must be paid to creative ways of handling the musical material and organising the activities.

Conclusions:

It is possible to learn:

- How to observe young children during musical activities.
- How to enlarge one's knowledge of the development processes of a young child.

Observation training for music teachers would produce musical activities related to the development of the child.

Assignment 2

This instruction teaches you to recognize behaviour which belongs to the social and emotional development of the toddlers. (3 to 4 years old)

Observe for 45 minutes a situation of free play in a nursery, or look at toddlers in your home surroundings. Choose one toddler and note his age. Look whether you see the activities mentioned below and note how many times this behaviour occurs.

Name toddler: Observation date:

Age: Size of group: children
adults

Time of observation:..... until.....

Activities:	Sc:	Soc	Em.
Chooses between partners			
Shows shyness when teased.			
Whispers with well known adults when strangers are present.			
Can wait for his turn and gives another child an opportunity without getting excited.			
Likes doing someone a favour, helps, obeys instructions, accepts limits.			
Shows a sense of humour. Does not take things literally any more.			
Joins games and tells others to keep the rules.			
Plays a fantasy game with other children			

Sc = score
Soc = Social
Em = Emotional
Indicate with a cross which behaviour matches the social or emotional development.

Assignment 3

This assignment enables you to relate things observed to the right area of development.

It shows you 3 pictures of children.

1. Join each picture to the linking area of development.

a) _____

b) _____

c) _____

2. How old do you take these babies to be.

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Assignment 4

Look carefully at the picture.

One of the musical activities is a song where the movements match the song.

To which areas of development does this song and its associated activities relate.

(Possible answers:)

Areas of development:	Yes/ no	Because:
Physical:	yes	of the movements
Social:	yes	they are playing together
Emotional:	yes	they are imagining things
Intellectual:	yes	stimulating the imagination .....
Sensory:	yes	they have contact with the hands, ...
Language:	yes	the children are singing .....
Musical:	yes	they have to react at the proper time, they are singing along, ...

Assignment 5

After this assignment you should be able to better recognize the musical behaviour of the young child.

On videotape:
A lesson in a nursery. The age of the children is approximately 3. This is the first meeting. The children and their nursery teachers are not familiar with the music teacher.

1. Indicate the musical behaviour shown by the children.

Musical behaviour:	Score:
They improvise in movement.	
Listening moments (concentration, listen to)	
Singing and physical activities	
Sing together with: - other children - parents/ guide / teacher	
Joins in with fragments of songs.	
Moves arms and legs as a reaction to the music.	
Reacts well to words in songs.	

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This paper is submitted for consideration for the Seminar
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Classroom music for non-music major students in kindergarten teacher training:

fostering a positive attitude for enjoyment of music with young children

Omi, Atsuko

Lecturer of faculty of education,
early child education devision,
Kawamura Gakuen Woman's University
1133 Sageto Abiko, Chiba, 270-11 JAPAN

Classroom music for non-music major students in kindergarten teacher training:

fostering a positive attitude for enjoyment of music with young children

Omi, Atsuko

Abstract

Kindergarten teachers have a special role to raise children's fundamental musicality which is based on human development and tradition, and which is basic for the later learning of music. Therefore the research on classroom music for non-music major students in kindergarten teacher training is important.

My principles in teacher training are as follows: (1) to break the preconceptions about education and music, (2) to conduct model-teaching, (3) to make compatible the occupational usage for the future and personal satisfaction as musical experience in the present.

I tried to turn the 90 minute class itself into an improvisational musical performance without an audience. Each class consists of musical activity units, examples of which I show in this paper. Also I propose teaching strategies in classroom music, for the "musical" teaching of "true nature of music", utilizing the advantage of "a group".

My practice has obtained good results as a whole from the view point of fostering a positive attitude for enjoyment of music with young children.

Classroom music for non-music major students in kindergarten teacher training:

fostering a positive attitude for enjoyment of music with young children

Omi, Atsuko

Ⅰ. Introduction

How do we think about the profession of teaching music in kindergarten? I have taught classroom music in kindergarten teacher training for four years. I have always faced such difficulties as lack of time, lack of student's musical ability e.g. musical illiteracy, lack of true appreciation of music which mechanical training of techniques has caused, and lack of motivation to inquire about teaching music to young children. How do we educate the future teachers on music education in kindergarten?

Ⅱ. Foundation of kindergarten teacher training in music

A. The property of teaching music in kindergarten

Young children by nature need a human-to-human relationship and genuine nourishment. But looking over our modern life, man-to-machine relationships are increasing, and mass communication causes the flood of sound, to often be busy and noisy.

I would define the profession of teaching music in kindergarten as a special and creative work which requires: (1) the strong wish to provide appropriate music for every child in an appropriate situation, (2) the reliance on the important role of music in the process of young children's human development, and (3) usual inquiry of music which brings happy feelings in everyday life in kindergarten.

B. Principles in teacher training

When I conduct my class for teacher training, I keep in mind the following three principles.

The first is to break the preconceptions about education and music, which students carry into the classroom. Some students believe: "In kindergarten, children merely sing and dance, the teacher merely accompanies the song with the piano. That's all. It's easy. " Others believe: " Teaching music may well be strict." Not just a few students think that the learning of music simply comes down to acquiring the basic techniques; of which the process is dry and tasteless.

The second is to conduct model-teaching. Ten times reciting "Teacher work is humanistic and creative" is not effective, but producing a humanistic and creative class is effective and attractive. I demonstrate actual teaching performances, in which I synthesize the following four viewpoints: (1) the significance of a teaching job (2) the necessity of being more conscious to one's own teaching behavior (3) the developmental stage or group dynamics of young children (4) the true nature of music.

The last is to balance and make compatible such twin concepts as (1) occupational usage for the future vs personal satisfaction as musical experience in the present (2) [from] imitative learning vs [toward] inventive teaching.

C. Teaching strategies in classroom music

When I conduct a class, I consider that it is a class of "music" and that it is "classroom" teaching. I mean that the teaching content is "music", the way of teaching is "musical", and that I utilize the advantage of "a group".

How do we define "music"?

Many students have inferiority complexes when it comes to music. They don't rely on their musicality. Their concept of music is too narrow to understand the child's world of music. Observation of children's spontaneous musical behavior (Omi 1992 b) teaches us that by nature children are musical, and that there is a close relationship between music, language and movement. That

reminds us of Carl Orff's concept of "fundamental music".

Once we adopt John Blacking's definition of music as "humanly organized sound", a dozen of our casual behaviors in daily life can sound musical. Imitating the sound of the blinker (of a car), "tick kack tick kack", can be musical behavior. George List categorized the recitation with pitch and rhythm as "Sprechstimme". "Sprechstimme" is one musical device in modern compositions. Hopping up/down the stairs while counting with short pauses at every landing is also interpreted as an interestingly organized sound/movement composition.

We reach the idea of fundamental musical devices, such as pitch, duration, dynamics, repetition, variation, contrast, canon, ostinato, etc. Receiving all of the above leads me to the idea of a "musical activity unit", in which I prepare more positive teaching occasions in play situations utilizing these musical devices. Also we can extend the linking of music to something which children adore, e.g. story-telling.

The condition of a "musical" way implies as follows: (a) to practice musically (b) to reduce linguistical indication to the minimum (c) to throw out "music theory on paper", and replace it with the senses as top priority (d) to keep the order from "by ear" to "at sight" (e) to turn the 90 minute class itself into an improvisational musical performance without an audience (f) to not stereotype the class

In "group" activities the teacher is by no means on a pedestal. An intimate and human atmosphere in the class encourages students to awaken the musicality sleeping within them. Space management is important, e.g. formation of a circle is more personal. I keep it in mind to give each person an equal chance and an indispensable role in the process of musical class activities. Free discussion after a series of musical activites allows a mutual exchange of impressions which fosters greater group dynamics and encourages further reflection.

III. Practice of music: fostering a positive attitude for the enjoyment of music with young children.

A. Process of teaching and process of learning

The title of the class I conduct is "Theory of music education", which all

first graders study in the first term. About twenty-five female students attend a 90 minute class once a week. They also attend a 45 minute group lesson of piano playing, and a 45 minute chorus classes.

Figure 1. illustrates the structure of my class. In the process of teaching, each of Stages 1, 2, 3 corresponds to "plan", "do", "see". Looking into the "(Understanding of) children's world of music" and considering the "definition of music", some ideas of "musical activity units" come to mind. In order to make these ideas into substantial and self-contained ones, "Principles in teacher training" and "teaching strategies in classroom music" are indispensable.

In Table 1. I show the categories of "musical activity units" and the examples of each category. Most of them are class activities with my students, some of them are proposed to students as an example which tells of the further possibilities to make musical experience with children. Each naming is intended to break the preconceptions about music with the feelings of joy and surprise.

In principle each class is complete by itself. Each class varies from the other: that makes students anticipate the following classes. I require students to introspect the musical experience in the class through discussion at the end of the class or by writing as homework. They necessarily analize my "model-teaching" not only from the learner's viewpoint but also from the teacher's viewpoint. Therefore students trace my teaching process backwards.

In the process of learning, There are three phases. I keep the order "from experience to knowledge". In Phase 2, students are oriented to generalize each of the particular musical activities. In Phase 3, students become the creators. Each eight member group creates a 3-5 minute musical performance according to the theme. I adjust so that the theme varies among each group. I have made it a rule to conclude my class by giving students an occasion to present their own creative group performance. This serves as an examination as well. But the concert surely delights all the members.

B. Musical activity units

Now I illustrate the musical activity units according to Table 1. Seven categories are induced from my experience and named by me. I owe my practice to

the great music educators or thinkers such as Zoltan Kodaly, Carl Orff, Murry Shafer, John Paynter, etc. Some insightful practices on the creative approach by Japanese teachers gave me good suggestions. Kazuo Shigeshita encouraged me and gave me useful advice about hand-made music instruments.

Adapting my research (Omi 1992 b), Category 2 corresponds to "Syllable Song", Category 4 to "Story Song", Category 7 to "Message Song" (Table 2).

(1) Every student explores sound enthusiastically. Kitchen tools change into fine music instruments [Video Ex.1]. Tuning wineglasses requires much concentration to the sound, and each player with each tone should cooperate to produce music. A milk-carton recorder is attractive because its sound is pure and it costs nothing. The feeling of accomplishment and the new concept about music makes the students feel delighful.

(2) Vocal sound ("Mouth Music") is "almighty" to not only accompany a song with harmony ("Human Organ") [Music score①] or with rhythm ("tiki-tiki") [②], but also to make a musical piece [③].

(3) In my research (Omi 1992 a), I discuss the relationship between language and music. Children talk as if singing, and sing as if talking. I take notice of the sound color, intonation, and rhythm of the Japanese language. I want to emphasize the combination of sound expressiveness and the meaning of aword [④]. A rhyme is very close to music. "Chanting a rhyme" and "Concocting music from rhyme" leads us to the child's world of music [Video Ex.2]. We might utilize the way of learning Japanese drum performances into sound composition. You can find, in video example 6, that children are reciting "Shoga" which shows rhythm, timbre, and execution [⑤].

(4) I composed a riddle picture book which was my children's favorite[⑥]. Adapting the category of "Story Song" has been sucessful! My students also love it. Utilizing the idea of "Riddle Song", I composed the rhyme in both western and Japanese style in order to teach the concept of tonal organization [⑦ a,b]. On the other hand I arranged them into ensemble pieces in order to teach various musical devices such as ostinato, echo, repetition and variation, etc. or the idea of "Mouth Music"[⑦ b]. Positive linking of music to other activities is attractive to children [Video Ex.3,4][⑧⑨].

(5) "Name Music" [⑩] is also combined to "Mouth Music","Tiki-tiki"[②]. The rule is simple: five vowel, "a, i, u, e, o" turns into "do, re, mi, fa,

sol". "O-mi, a-stu-ko" sounds "sol-re-do-mi-sol". Using the tone set, not changing the order, the owner of the name is able to improvise one's "Name Music".

Using the same syllable "mama", we might enjoy an improvisation, changing the pitch, volume, sound color, etc.

(6) I think traditional game songs and folk culture are a treasure house to raise the fundamental musicality of our nation [Video Ex.5,6].

(7) I never substitute music for daily teaching routines. We enjoy these activities as music.

C. Considerations for the future

Overall, my methods have been successful. At first, they perceive my class as interesting, joyful, fresh, and enlightening. Secondly, they have awakened the musicality sleeping within them, and their view of music has become flexible. Thirdly, they realize the property and significance of teaching music in kindergarten. Reading and writing after experience urged their thinking. I can ascertain these results through their final writing.

The trouble is lack of time for deeply appreciating and developing each musical activity, and for elaborating their creative performance. In order to realize my teaching objective, "from imitative learning towards inventive teaching", we need sufficient time.

IV. Conclusion

Kindergarten teachers have a special role to raise children's fundamental musicality which is based on human development and tradition, and which is basic for the later learning of music.

Therefore the research on classroom music for non-music major students in kindergarten teacher training is important. This research includes (1)the exploration of creative teaching methods and appropriate teaching content for children, and (2)the development of musicality of future teachers. The latter means students'creative approaches to music as adults. The former means to keep the mutual relationship between the child's world of music and the researcher of

music education, and future teachers as well.

Overall, my methods have been successful from the view point of fostering a positive attitude for enjoyment of music with young children.

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Table 1 "Musical activity units" : Categories of and Examples

Category name and title of musical activity units	Video example	Music score	Notes
1. "Let's explore sound!"			
1-1 Kitchen Music	Ex.1		◎
1-2 Wineglass Harmonica			◎
1-3 Handmade Milkcarton Recorder			◎
2. "Mouth Music is almighty."			
2-1 Accompaniment with "Human Organ"		①	
2-2 Accompaniment with "tiki-tiki"		②	
2-3 Music for imitated instrumental sounds		③	
2-4 Onomatopeia Music			≠
3. "Let's play with the Japanese language!"			
3-1 Sound expression of sense of word		④	≠
3-2 Chanting a rhyme with percussion instruments			
3-3 Concocting music from rhyme	Ex.2		
3-4 Vocal sound simulation of the Japanese drum		⑤	≠
4. "Music links to something."			
4-1 Riddle Song		⑥⑦	◎
4-2 Story-telling with a spoonful of music			
4-3 Associating illustrations with music	Ex.3	⑧	☆
4-4 Imaginative movement with music	Ex.4	⑨	☆
5. "Composition according to the rules"			
5-1 Name Music		⑩	
5-2 Calling mother			≠
6. "Welcome to a world of music!"			
6-1 Invitation to Japanese children's game songs	Ex.5		
6-2 Experiencing a Japanese drum performance	Ex.6		◎
6-3 The enlightenment of the music box.			◎
7. "Why not season daily teaching routines?"			◎
7-1 Opening song, ending song			
7-2 Calling roll			
7-3 Collecting reports in turn			
7-4 Passing out printed material			
7-5 Distributing small insruments			

◎ : enthusiastically accepted unit
≠ : not yet practiced in a class
☆ : educational video for young children

Table 2 Categories of songs and their characteristics

No.	Category Name	Text	Motive for Singing	Contents of Song	Word Usage
1	Message Song	sentences	to communicate	a message	meaningful
2	Story Song	sentences	imaginative play	an imaginative story	meaningful
3	Keyword Song	words	to express emotion	emotion	meaningful
4	Syllable Song	nonsense words/ syllables	tc enjoy sound-formation	sound itself	nonsense

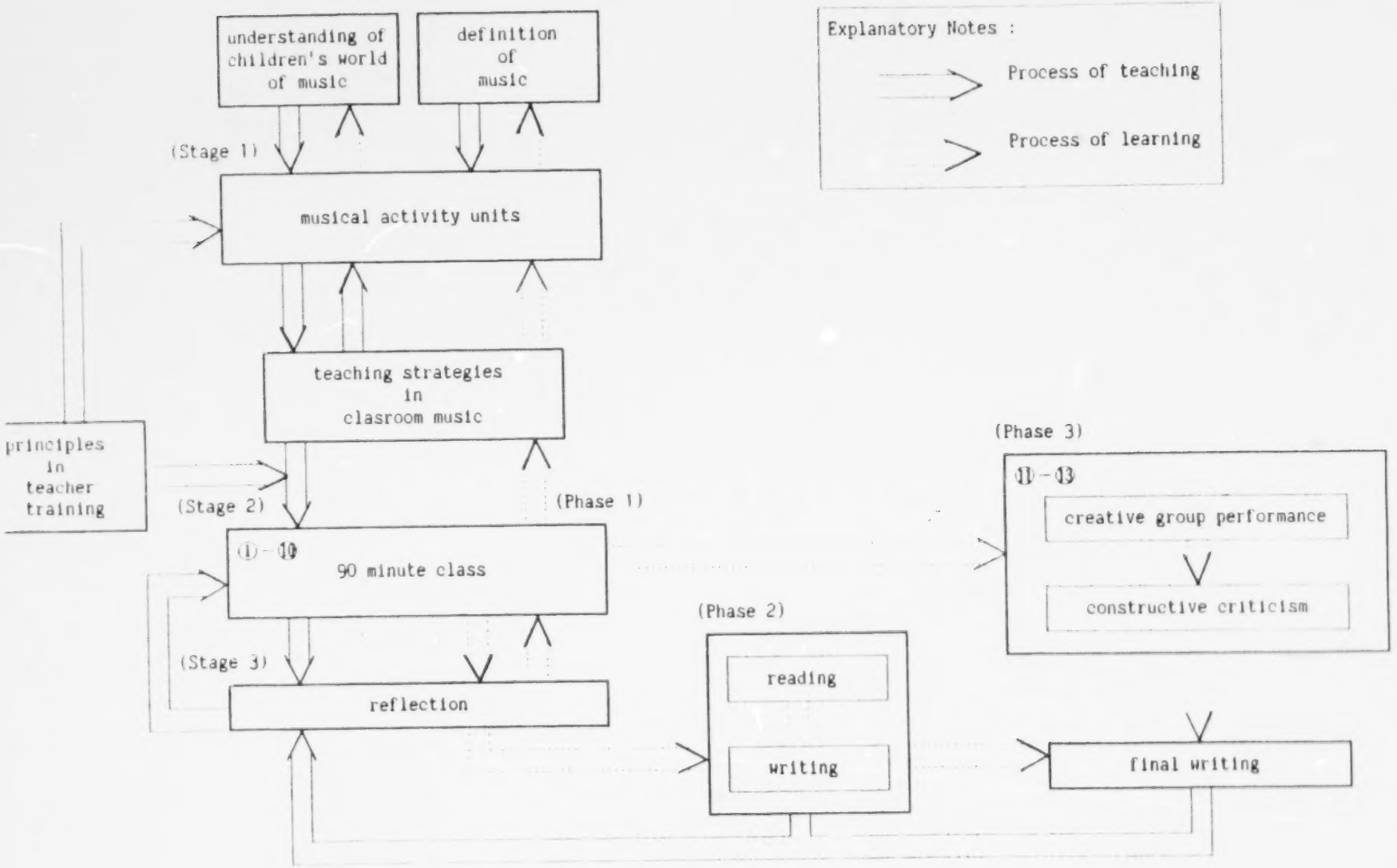


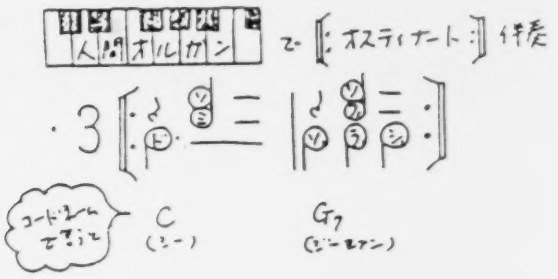
Figure 1 Structure of the class

Appendix : List of video examples

No.	Activity unit	Tytle	Notes
Ex.1	Kitchen Music	"A song-medley of a year"	students' creative group performmance
Ex.2	Concocting music from rhyme	"Kappa"	students' creative group performmance
Ex.3	Associating illustrations with music	"A green caterpillar" : for the cognition of a cirle ("maru"),a square, and a triangle	educational video song: by Omi
Ex.4	Imaginative movement with music	"Let's go for a walk" : a combination contrustive movement of a littlr boy, a bear, an ant, and a frog.	educational video rhyme & song: by Omi
Ex.5	Invitation to Japanese children's game songs	"Antagata dokosa" (originally a ball-bouncing song) : a combination of singing, varied hand-clapping, and ball-bouncing	arangement: by Omi
Ex.6	Experiencing a Japanese drum performance		(for the purpose of showing students 5 year old children's performance)

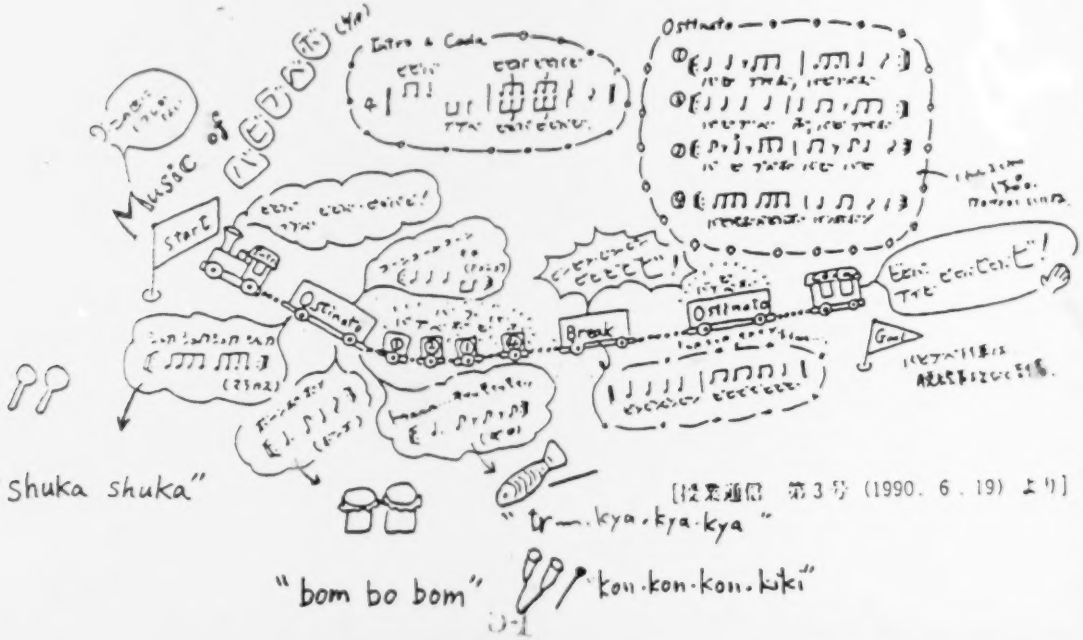
Musical scores

① Accompaniment with "Human Organ"



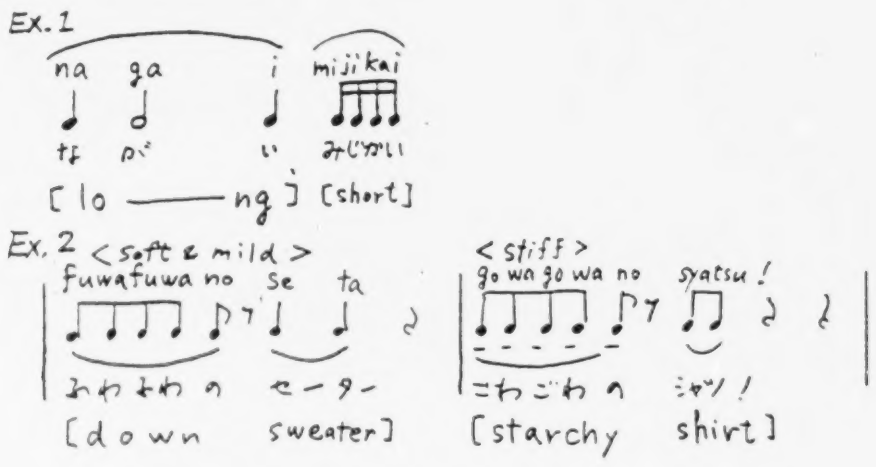
② Accompaniment with "tiki-tiki"

③ Music for imitated instrumental sounds

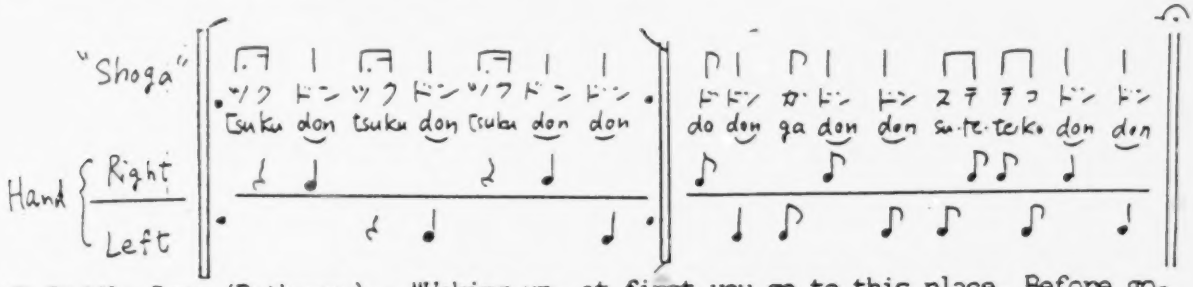


[投書通信 第3号 (1990. 6. 19) より]

④ Sound expression of sence of word



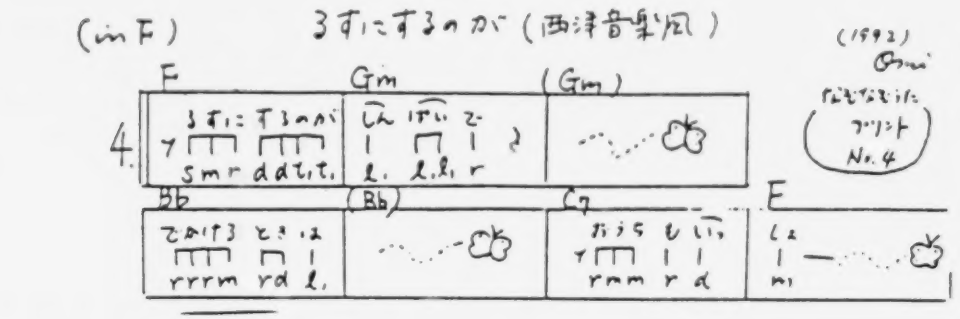
⑤ Vocal sound simulation of the Japanese drum


"Shoga"
Hand
Right
Left
ツク ドン ツク ドン ツク ドン ドン
tsuku don tsuku don tsuku don don
ドドン ガ ドン ドン ス テ テ コ ドン ドン
do don ga don don su-te-te-ko don don

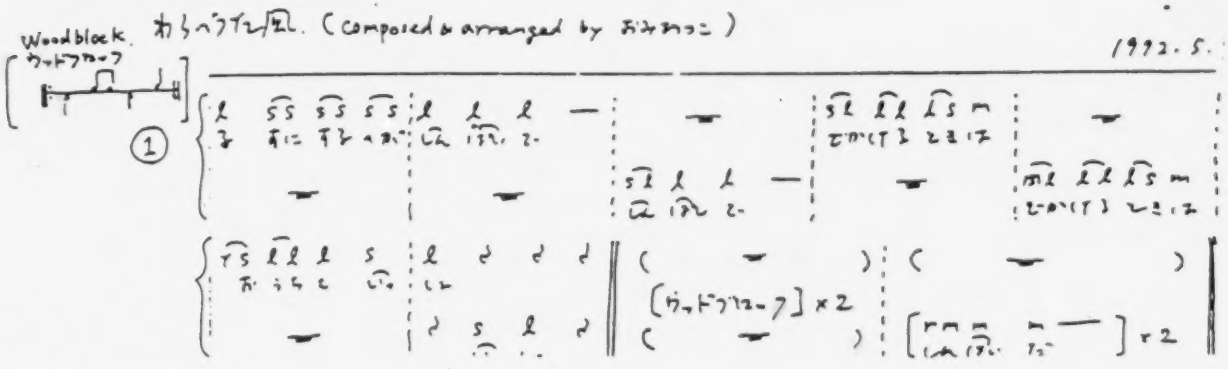
⑥ Riddle Song (Bathroom) : "Waking up, at first you go to this place. Before going out, you go there. Before going to bed, you also go there. When you want to go there, you'd better go quickly. You have to go alone. What is this place?"

⑦ Riddle Song (Snail) : "As I'm anxious about being absent from my house, I alway go out with my house. Who am I?"

⑦-1. [Western style]

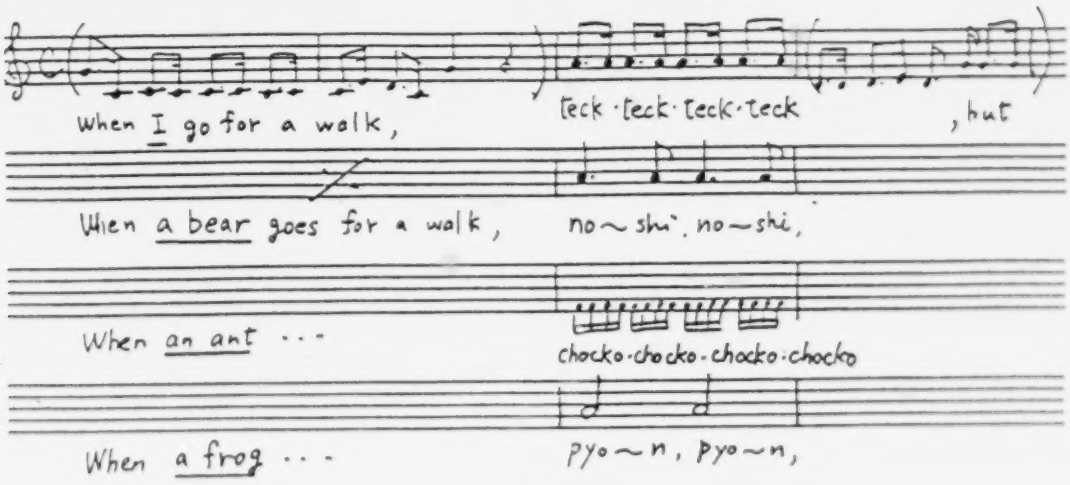


⑦-2. [Japanese style]

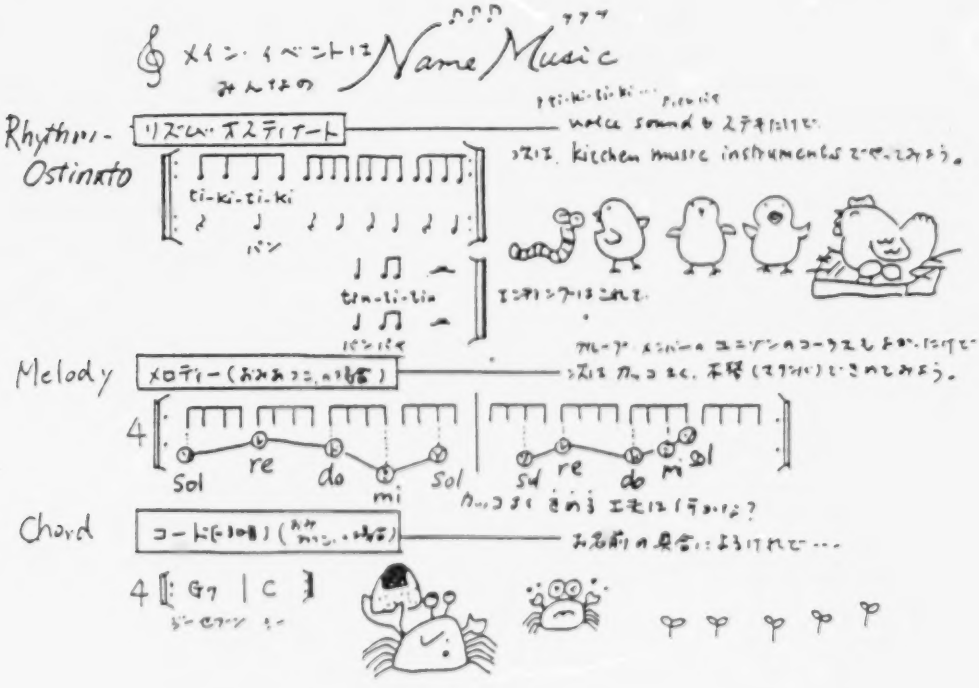


⑧ Associating illustrations with music ("Green caterpiller")

⑨ Imaginative movement with music ("Going for a walk."



⑩ Name Music



This video is submitted for consideration

for the seminar

"Vital Connections: Young Children, Adults and Music,"

11-15 July, 1994

EARLY CHILDHOOD COMMISSION OF ISME

COLUMBIA, MISSOURI

Emotional Growth

Through

Musical Play

(video tape)

Mary Stouffer
Early Childhood Music Educator
Royal Conservatory of Music
273 Bloor Street West
Toronto, Ontario M5S 1W2
Canada

Home address:
95 Alder Crescent
Etobicoke, Ontario M8V 2H7
Canada

Home Telephone:
1-416-253-7464

Stouffer

ABSTRACT
(Video)

MUSIC WITH YOUR BABY

Emotional Growth Through Musical Play

The healthy development of a baby's emotions starts with the relationship between parent and baby. Music is a natural catalyst for this development. In the past, baby songs and games were passed orally from generation to generation. Today's parents can attend music classes to enhance their musical skills and learn age-appropriate and quality material to play with their babies.

Musical activities which promote emotional stimulation and development should be included in a baby's routine to balance the physical and intellectual pursuits which often receive greater attention. The music programme is also designed to focus the parents' attention on the importance of emotional development and to encourage them to spontaneously play the musical games at home.

Musical play nurtures confidence and well-being in a child and helps develop a stronger bond between parent and child. These factors assist the maturing child to cope with the challenges of life.

Olive McMahon
Consultant, Early Childhood Education
48 Victoria Ave
Chelmer, Q 4068
Australia

This paper is submitted for consideration for the Seminar 'Vital Connections: Young Children, Adults and Music,' 11-15 July, 1994.

ACTION RESEARCH - GETTING INVOLVED

(This paper is an extension of my 1992 ISME Early Childhood Seminar paper, Tokyo: Teaching as Research - Problem Solving).

ABSTRACT

A growing interest in action research is encouraging teachers to explore alternative procedures to help them develop more effective strategies in less-than-satisfactory classroom encounters. This paper outlines some approaches reported in the literature, and suggests options which might be adopted by classroom music teachers.

(Material in the paper will be complemented with discussion of practical illustrative examples).

Olive McMahon
Consultant, Early Childhood Education
48 Victoria Ave
Chelmer, Q 4068
Australia

This paper is submitted for consideration for the Seminar 'Vital Connections: Young Children, Adults and Music,' 11-15 July, 1994.

ACTION RESEARCH - GETTING INVOLVED

Classroom teachers are ideally situated to be aware of not only individual children's behaviour within the group context, but also their own, the parents' and the community's influences on that behaviour. Too often investigations of child behaviour appear to assume that the only - or major - factor in children's lives are the children themselves, their chronological ages and their innate abilities.

The early childhood development and learning literature stresses the complexity of interwoven environmental influences on children's early development, including factors such as play opportunities, learning 'climate' and parental support. Community attitudes and the press for achievement vary from time to time, but the important elements in the learning milieu are the child, the teacher and the parents. 'Parenting' itself is still not a regular school elective, let alone a core unit, but as parents are gradually becoming better educated, they are also becoming more aware of the advantages of a broad general education.

In many countries undergraduate courses do not include basic research procedures, so teachers must undertake specialised post-graduate studies. Research has tended to be seen as a university and higher degree prerogative, with an emphasis on a psychometric approach to research into development and learning. The current trend to develop a broader and more flexible approach, with an increasing emphasis on 'process' rather than 'product,' is gradually gaining strength and acceptance.

your own investigation from the description. Do not be afraid to have a try at devising a suitable method for your own issue.' This applies particularly to music educators.

An open perspective of classroom research is provided by 'ways of Assessing Children and Curriculum', 1991, edited by C. Genishi. The sub-heading of the title is 'Stories of Early Childhood Practice.' A collaborative effort between early childhood teachers and teacher educators, the book reflects a reaction against a widespread practice in North America of using standardized tests on children in the very first years of formal schooling. (Mid-1954 I was required to test my Canadian kindergarten classes so that they could be 'streamed' when they proceeded to Year 1!!!)

'Story', or narrative, 'incorporates lived experience in ways that are sequenced in "real time"..... stories allow us to generalize to our own experiences, to see ourselves in new scenes or scenes similar to those we know' (Genishi, 1992). Stories, recorded observations of individual children, will include interactions with other children, the teacher and other adults, and the environment itself. Witherell and Noddings (cited in Genishi, 1992) believe that 'stories are powerful research tools. They provide us with a picture of real people in real situations, struggling with real problems. They banish the indifference often generated by samples, treatments, and faceless subjects. They invite us to speculate on what might be changed and with what effect'.

Theories of development - theories of practice

According to Fein and Schwartz (cited in Genishi, 1992), theories of development are descriptive, giving systematic accounts of human growth, making no judgments about how development should occur, but 'describes and explains how it does occur in human beings in general' - a passivist approach.

In contrast, Genishi (1992) argues theories of practice are prescriptive, applying to 'particular children and teachers in educational settings', leading to recommendations 'about how adults ..... should arrange environments for children', and

'take an active role in their own settings to provide experiences that benefit the greatest number of children.'

Tucker (1993) proposes that '"research" should imply reflective action, the re-searching through options and possibilities in a systematic fashion, so that known details may be seen in a new context. The diagnostic and problem-solving nature of much teaching, with the need for teachers to be flexible, innovative and interactive in all situations, as opposed to simply following a formula, is the basis of questioning and the search for more appropriate ways to achieve goals.'

Although Fiske (1992) believes that 'classroom music teachers ..... should serve as their own researchers', he sees this shift in terms of experimental research activity dividing into two groups - 'the continuation of studies conducted by those trained to be professional researchers' and 'formal experimental studies conducted in the music classroom by music teachers interested in testing and evaluating their own teaching procedures and materials.'

So, what are the options for the teachers-would-be-action-researchers and where might they begin?

<u>One-off solutions</u>

These occur regularly in classroom situations. In response to a teacher's comment or suggestion, some children may hesitate, look puzzled, fail to respond positively. Perceptive teachers will react quickly to signals received and promptly modify their behaviour, teaching strategies, in some way - on-the-wing as it were. This may involve clarifying the meaning of a word or expression

* by using an alternative word or expression more meaningful to the non-responsive children;
* by an appropriate gesture or mime;
* by substituting material or equipment with a suitable alternative;
* by changing the tempo or timing;
* by approaching a set goal from a different perspective.

Often a one-off event with an individual child or small group can be resolved by the teacher offering a choice between two (or more?) possible solutions - providing the context offers a reasonable chance of success. Teachers must, of course, always be prepared to experience failure in their efforts, but also to regard such experiences as a spur to more reflective action.

At all times the teacher who has a sound grounding in human development studies will be well positioned to recognise discrepancies between a child's level of development and the teacher's level of expectation. The gap may entail more than one area of development - physical, cognitive, emotional, social, aesthetic, cultural. It may also relate to Gardner's theory of multiple intelligences - linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, intrapersonal and inter-personal. Music in toto involves aspects of all of these.

Sequential changes

These may involve a step by step progression, with a gradual rise in level of expectation or direction as small increments of success are achieved. Trial and error attempts to provide solutions to problems sometimes work, but the reason/s for successful intervention may not be adequately understood. Moreover, yet another failure on the part of a child may add a type of compound increment to increasing frustration. More effective is an 'educated guess' where the teacher has actively reflected on possible 'mis-matches,' considered possible alternatives and selected those options most likely to achieve the desired result.

Reflective teachers will be immeasurably encouraged by partial success when some approximation of the final outcome has been achieved. And the child who realises that the teacher has reacted positively will concentrate harder and strive for complete satisfaction.

Shared perceptions, ideas

Discussion with colleagues, preferably after observation of incidents featuring the responses causing concern, offer additional

or possibly differing points of view, initiating an exchange of perceptions and ideas. (A video-tape of relevant responses is a valuable resource). Early childhood and special educators provide effective sounding boards for music educators.

Literature search

Reference to professional journals and libraries for material relating to the problem under consideration and/or relevant research will provide additional information, if not solutions. Clarification of ideas, exploration of possible contributing factors and new insights are all possibilities.

Collaboration between teachers and researchers

Teachers who are sufficiently motivated to extend their knowledge base in order to help the children they teach will profit from collaboration with post-graduate and more experienced researchers.

Higher degree research tends to reflect the interests of the graduate students themselves, and is not necessarily applicable to classroom practice. However, as the arts in education are increasingly under threat, as private music teaching is to some extent being replaced by school involvement, and as national and international professional communication becomes more accessible, there seems to be a movement towards more applied research and renewed interest in action research. Adelman and Kemp (1992) comment : 'Action research begins with the awareness by one or more people of a persistent "problem" which seems to be an impediment to getting things done as well as they could be - there is an awareness of a gap between desirable and actual practice.'

Action research 'requires the researcher to move from the supposedly disinterested stance of the scientist to becoming engaged in the processes of designing and implementing, with the informed consent of participants, an intervention in their work or domestic practices' (Adelman and Kemp, 1992).

Conclusion

Among the issues of concern discussed at the final working session

of the Thirteenth ISME International Seminar on Research in Music Education was the need for researchers to adopt 'more descriptive research strategies, particularly in those areas where research questions do not lend themselves to an experimental methodology' (Kemp, 1991). The Research Commission and the ISME Early Childhood Commission actively encourage teachers to be 'more research-minded.' Both have organised research sessions/workshops to provide practitioners with sufficient basic information to stimulate informed involvement - and perhaps even further studies in research methodology.

Kemp (1991) suggests: 'By learning to ask probing questions about their teaching methods and their pupil's learning styles, and by seeking to answer them using appropriate methodologies, teachers' effectiveness is bound to be enhanced.'

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(Material in the paper will be complemented with discussion of practical illustrative examples).

THE EFFECTS OF TEACHER-CHILD INTERACTION STYLE ON THE SPONTANEOUS MUSIC BEHAVIORS OF PRESCHOOL CHILDREN

SUSAN M. TARNOWSKI
DEPARTMENT OF MUSIC & MUSIC EDUCATION
UNIVERSITY OF WISCONSIN
EAU CLAIRE, WI 54702

PURPOSE. This study was designed to investigate the spontaneous musical play behaviors of preschool children aged 4-5 years and the effects of four teacher-student interaction styles on specific vocal musical behaviors during free-play time.

STUDY. In the first part of this study, 34 early childhood majors were trained to observe musical behaviors in preschool children. These students spent 33.5 hours observing children aged 4-5 at a university preschool during the children's free-play time. Two investigators tallied the number and description of the behaviors and created general categories: inflected speech, rhythmic speech, chant, song, whole-body movement, manipulation of musical objects and manipulation of non-musical objects in a musical way. The most frequent musical behaviors were vocal in nature. In the second part of this study, 16 children aged 4-5 years were randomly assigned to one of four groups. The groups differed in the style of interaction between the teachers and students while the teachers presented examples of inflected speech, rhythmic speech, chant, and standard song materials through the use of hand puppets. The interaction styles were identified as the Entertainer, the Communicator, the Director and the Observer. Children participated in six 15-minute sessions with co-teachers. After each session, the children were videotaped using the puppets for a total of 90 minutes during free-play time.

ANALYSIS. Two investigators independently viewed the videotapes and both tallied and categorized vocal music behaviors. There was a 98.3% agreement between the investigators on the total number of behaviors. This small disagreement was reconciled by a second viewing of the tapes. An Analysis of Variance (ANOVA) was used to determine whether interaction style caused significant differences in the amount or type of vocal music behaviors in the children during free-play.

RESULTS. Musical behaviors were most frequently demonstrated by the Observer group, followed by the Communicator, the Entertainer and the Director. The most frequent musical behavior was inflected speech followed by song, chant and rhythmic speech. There was no significant difference found due to either group or the interaction of group and specific behaviors ($p > .05$). Original material accounted for the majority of materials used by the children, followed in frequency by materials used as presented by the teachers, standard materials not presented in the special sessions and materials used differently than presented.

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Susan M. Tarnowski, Music Ed.
Department of Music
University of Wisconsin
Eau Claire, WI 54701

MUSICAL PLAY OF PRESCHOOLERS AND THE EFFECTS OF TEACHER-CHILD INTERACTION STYLE ON THOSE BEHAVIORS

Much has been written about children's play and the role of play in preschool education in recent years. Carter & Jones (1990) speculate that "the height of developmental achievement for children ages three through five is to become a *play master*. It is in play that children consolidate their understanding of the world, their language and their social skills" (27). However, theoretical support for children's play has not transferred easily into the classroom. Shehan-Campbell (1990) comments: "More often than not, school policy and bureaucratic standards allow for few opportunities for learning through play. Indeed, formal schooling appears to be somewhat the antithesis of play" (19). Since experimenting and improvising with sound may be seen as *musical play*, this study examined the improvised musical play behaviors of preschool children in their regular classroom settings and the effects of various teacher-child interaction styles on those musical play behaviors.

Early childhood researchers have defined aspects of social (Rubin et al, 1983; Smith et al, 1985) and cognitive (Smilansky, 1968) child-play and some have attempted to establish connections between play and divergent thinking tasks (Dansky et al., 1973; Li, 1978) as well as

creativity (Vandenberg, 1980; Liebermann, 1977). Musical child-play has been advocated and observed in naturalistic settings by Davidson, McKernon & Gardner (1980), Littleton (1991), Miller (1986), Moorhead and Pond (1978 [1941-51]), Shelley & Foley (1979).

The Study: Part I

Using information from previous research as well as their own experiences, the investigators trained 34 undergraduate students enrolled in two sections of an early childhood music methods course to observe and record the spontaneous musical behaviors of children aged 4-5 during free-play time at a university preschool. These students observed for a total of 33.5 hours and recorded 316 musical behaviors.

The majority of all of the musical behaviors (62%) were vocal in nature: vocal explorations and inflected speech (14%), rhythmic speech (12%) and pitched songs and chants (48%). The investigators used the definitions of vocal music play described by Pond (1981). *Chant* is a recitation-note, repeated as many times as necessary with a descending minor third at the end of the phrase. It may also take the form of two descending minor thirds linked together by an ascending perfect fourth. In this case it takes on a characteristic rhythmic shape: long-short-short-long-long. It is most often sung in a middle register. *Song* is a very different vocal form using varying unpredictable melodic undulations and rhythmic shapes (9). This study included a category for original song and for learned or standard songs. Of the total number of pitched chants and songs, 18% were chants, 47% were original songs, and 35% were standard songs or song fragments.

Rhythmic movement accounted for 20% of the total observed musical behaviors and this was fairly evenly divided between full body movement (52%) and movement of an object (48%). The least frequently observed behaviors (6%) consisted of children's interactions with instruments, none of which were easily accessible to the students. Since vocal musical behaviors were the prevalent mode of music-making, examples of vocal exploration, rhythmic speech, chant, original songs and standard songs in their social context may be seen in Table 1.

The study: Part II

The importance and the role of the teacher as a facilitator of play and a provider of play environments has been investigated by several researchers (Carter & Jones, 1990; Caldwell, 1985; Dorman, 1990; Graham et al., 1989; Gottfried, 1985; Huston-Stein et al., 1977; Levenstein, 1985; Littleton, 1991; Moran, Sawyers, & Moore, 1988; Pond, 1981; Rubin, Fein and Vandenberg, 1983; Shehan-Campbell, 1990; Shelley, 1981; Sutton-Smith, 1979). Fleming et al. (1991) found that preschool teachers engage in many roles, interacting differently with children throughout the day. Fein (1979) and Graham et al. (1989) described three play styles observed in adult-child interactions: 1) the *unstructured or imitative style* which is non-intrusive or passive in nature and describes situations in which the adult either imitates the child's actions or makes no response at all; 2) the *elaborative style* which is minimally intrusive and describes situations in which the adult may introduce an idea or make suggestions which alter either their child's action or the object with which the child was playing; 3) the *structured or unrelated style* which is intrusive in nature and

describes situations in which the adult is demanding or imposes either his or her own view or a specific object on the child's play.

Manolson (1992) cites four roles adults might take when interacting with young children which appear to have relevance to the music educator. *The entertainer* does anything to get and keep the child's attention and most especially puts on an animated show. The children are treated positively but not encouraged to join in the musical activity. *The director* demonstrates and instructs with the purpose of teaching specific concepts or skills. This teacher may dominate the action and allow the children to respond only in the way they are taught. *The observer* watches or comments upon the musical play of the children but does not enter into the play. *The responsive partner* enables both the child and the teacher to present materials, make suggestions for musical play and adapt the music activity. The children are allowed to improvise with the materials.

In the second part of this study, 16 preschoolers aged 4-5 years were randomly assigned to one of four groups each with differing teacher-child interaction styles: *entertainer, director, observer, and responsive partner.* The investigators met with each group six times for 30 minutes each. The first half of each session was spent presenting vocal musical materials to the children via hand puppets and the second half was used as the children's free-play time with the puppets. The presented musical materials included vocal explorations of register and tone color (inflected speech), rhythmic speech, chant, standard song fragments and whole songs. One new form of vocal music behavior was introduced at each session. A final day was used to allow the children an extra free-play time period. In the case of the

observer group, no materials were presented and the children were given fifteen minutes of free-play time with the puppets.

The free-play sessions (total 90 minutes per group) were videotaped while the investigators were out of the room. The two investigators independently analyzed the videotapes for frequency and type of musical behaviors in each group. The investigators were in agreement on 98.3% of the total music behaviors. This discrepancy was reconciled during a second viewing of the tapes.

A total of 120 musical play behaviors were recorded. The largest number of incidents occurred in the *observer* group (41%) followed by the *responsive partner* group (27%), the *entertainer* group (19%) and the *director* group (13%). An Analysis of Variance (ANOVA) was done and these differences were not found to be statistically significant ($p. > .05$). The most frequently occurring specific musical play behavior was inflected speech (42%), followed by song (26%), chant (17%) and rhythmic speech (16%). Specific behaviors by group may be seen in Table 2.

The investigators were also interested in whether the children used the musical materials as presented in the small group sessions. Analysis of the videotapes showed that the largest number of musical play incidents consisted of original materials (70%), followed by materials used as presented (22%), standard materials not used in presentations (6%) and materials used differently than presented (2%). As expected, the largest number of original materials occurred in the *observer* group which had been presented with no models.

Analysis of the social play context of the musical behaviors showed that all of the cooperative play occurred in the *observer* group

while all other forms of play (solitary, onlooker, parallel and associative) occurred in groups with specific teacher presentations. The most complex and extended dramatic play occurred in the *observer* group while the other groups tended to explore the puppets as objects and to investigate appropriate sounds.

Discussion

Both the largest number of musical play behaviors and the widest variety of musical materials occurred in the *observer* group. The children's responses covered all identified aspects of vocal music play: vocal inflections such as the use of *glissandi* when the puppets climbed up or slid down in the context of the narrative; rhythmic speech such as a time in which the puppets were made to move as on a walk through the forest; chants such as "You can't catch me!" when one puppet chased another; original songs using either nonsense words or text that enhanced the original narrative; standard songs from either the preschool classroom or popular culture.

Children in other groups exhibited fewer musical behaviors and seemed hesitant to experiment with something new. On one occasion, the children in the *director* group sat quietly through the entire play time, ignoring the puppets left for play. Hutt (1971) found some evidence to indicate that play with an object before it has been fully explored may limit the child's discovery of it's specific properties. She cited an example in which preschool teachers reported that children did not use the hand puppets in any way except that in which the teachers had modeled when the puppets were new. The approach in the *director* group may have inhibited any further curiosity on the

part of the children since the "correct" actions and sounds had been modelled by the investigators. Additionally, the most complex dramatic play emerged from the *observer* group. It appears that the children who had not been presented with "correct" models of puppet action and sound were able to explore the physical properties of the puppets much more quickly than the children in the other groups and even integrate that exploration into the dramatic play. A transcript from one of the first play episodes of this group is included in Table 3.

In addition to creating sounds for the given puppets, the children in the *observer* group created new puppets to suit the needs of their dramatic narrative: a hand became "the announcer" with appropriate vocal inflections; a long cardboard mailing tube became "Snort", a central character. Even a star affixed to a drinking straw was given a personality. No other group created such sophisticated and eclectic play scenarios.

Bateson (1955) suggests that social play would occur only if the children were capable of some level of metacommunication - communicating about communication - and if they were able to communicate to other participants that *this is play*. In the excerpt cited in Table 3, one child signals the other that play has begun by saying, "Let's pretend...". Getz (1981) observed that in the more sophisticated cooperative play, children gave direct cues for the behavior of the play partner such as role assignments, direct action and identification of props for the dramatic play. It may be that by giving the children in the *observer* group the freedom and the time to construct their own play, they were able to draw upon a wider

repertoire of musical and narrative materials and engage in play interactions of a more complex nature.

The results of this and other studies confirm the presence of vocal music behaviors in the play of young children. They also suggest that music educators of these children must not only allow and encourage musical play but must also become observers of musical play, alert to the musical content as well as the cognitive and social significance of that play for the preschoolers.

Shehan-Campbell (1990) suggests that the music of children may be used as a component of preschool music curriculum to enhance the development of the musical capabilities. A heightened awareness of the child's own music-making may lead to a stronger appreciation of the abilities and interests preschool children bring to our classrooms. Music educators will then be able to approach curricular materials and strategies in music that are truly appropriate for this age level.

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Table 1

Examples of spontaneous vocal music behaviors

Sound	Context
Vocal inflection and sound exploration	
buzzing like a bee	bee seen through window
wheee (glissando)	playing with airplane
squeak, squeak	imitating wet boots on floor
puppy sound	dramatic play in house area
djun, djun	dramatic play - helicopter pilot
Rhythmic speech	
touch the sky, way up high	kicking foot into the air
ants in my pants, (repeat)	reading a bug book
no, no, macaroni	playing with blocks
pee tree, pee tree	playing with blocks
2, 2, 2, I got a 2	using a board game spinner
Chant (sol-mi, sol-mi-la-sol-mi)	
you're gonna get it	fighting over a toy
Kyle's a rotten Easter egg	to last child to line up
you can't come in	house play area
the witch is gonna get you	running around room
sitting on a fencepost	straddling a chair
you cut his feet off	at the art table
Original songs (various melodies, rhythms)	
time to put the toys away	while cleaning up
watch out for Daddy Longlegs	seeing a spider
hop, hop, I'm hopping all around	hopping alone
red, red, I like red, green, green, purple and green	while coloring
oh scissors, where are you	at the art table
nonsense words	rocking in a rocker,
"	making dinosaur dance
"	playing with clay
"	playing at sand table

Table 2

Percentages of behaviors by group

	Observer	Res. partner	Entertainer	Director
Inf. speech	30%	30%	22%	18%
Rhy. speech	47%	21%	32%	0%
Chant	20%	45%	15%	20%
Song	68%	13%	9%	9%

Table 3

Transcript of *observer* group play

C: (spoken to M, the second child)
M, let's pretend that I'm the Mama bunny and you're the Mama rat and this is the Baby bunny and that is the Baby rat and we're taking them across somewhere where it's along way, OK?

M: (spoken in low register)
One day there was a little rat skipping into the forest and then the little bunny skipped into the forest. They both liked each other.

M: (using bunny puppet and a sing-song voice)
Let's go into the forest and get some berries for our carrot stew

C: (using a rat puppet and imitating the sing-song style)
And I'll get some cheese for me! (squeaks in a high register)

M: (continues to move puppet and sing)
Doo-dee, doo-dee-doh.

C: (sings, using a *glissando* at the end as the puppet slides down)
Mee-mee-mee-mee-mee-ooooow!

M: But one day the bunny had to go home to gather berries and twigs and mushrooms. The rat was very sad. He did not want him to go.
(makes crying sounds in a low register)

C: (adds crying sounds in a higher register)

M: But one day the bunny came back to where the rat was crying...the rabbit came hopping by and saw the tearmarks of the rat and then the rat saw the bunny's footworks.
(C and M whisper together)

M: It was the bunny! They both hugged and went home.
(both sing nonsense words using a wide pitch range and unpredictable rhythm patterns)

Name: Josette Silveira Mello Feres
Music Educator and founder of the Jundiai Music School
Address: Rua Prudente de Moraes, 1297
Jundiaí - SP - BRAZIL - 13201-340

MUSIC AS MEDIATOR ELEMENT IN THE MOTHER-BABY RELATIONSHIP.

The idea of having mother and child together in some classes at Jundiai Music School, came from the intention of increasing ties of affection between parents and their children, and recovering a musical inheritance of songs and musical games, while providing the child with the known benefits music brings to its development.

The classes which have the parents participation are idealized for babies from 8 to 24 month of age and for 8 children from 2 to 4 years of age (PRE-INITIATION). Those classes consist of different activities including: free play, songs, marches, dances, movements, aural perception exercises, relaxing exercises and percussion groups.

Josette Silveira Mello Feres
Music Educator (since 1954) and
founder of the Jundiaí Music School (1971)
Address: Rua Prudente de Moraes, 1297
Jundiaí - SP - BRAZIL 13210-340

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MUSIC AS A MEDIATOR ELEMENT IN THE MOTHER-BABY RELATIONSHIP

The idea of having babies classes at the Jundiaí Music School came primarily from the necessity of increasing ties of affection between parents and their children, contributing to improve their relationship. It is a known fact that working and housekeeping has been steeling from parents much of the time used to dedicate themselves to their children. Having a specific moment to give exclusive attention to their babies, playing and singing with them, will always be necessary.

There was a time in Brazil when most of grand parents, parents and uncles would sing with the children. Now, specially in large cities this situation has been changed: adults have a very busy life with no much available time to those activities. In consequence, children are not receiving this part of our musical tradition. There were lullabies, songs telling stories, songs for clapping, making gestures and beating feet. There were also rhymed phrases with rhythms to draw players, and music to play with wood horses. It is symptomatic that during the last decade many tv shows for children have appeared in Brazil (Xuxa show being the most "successful" of them all having reached audiences in many other american countries), trying to fill in the vacuum left by the parents. However, they do not have the

compromise of preserving our musical tradition and much less the ability to establish a proper give-and-take relationship of affection. The Babies Class and Pre-Initiation to Music have effects in four different spheres of action. Babies receive all the known benefits music can bring to their development; parents become acquainted with songs and games to be used with their children to which most of them would not have had access; parents and children increase ties of affection; and, on the social sphere, music tradition is being preserved.

The Children Music Education Course at the Jundiaí Music School has the following levels:

1st - Babies - from 8 to 24 month of age.

2nd - Pre-Initiation to Music - from 2 to 4 years of age.

3rd - Initiation to Music - from 4 to 6 years of age.

4th - Pre-Children Musicianship - from 6 to 8 years of age.

5th - Comprehensive Musicianship for Children - from 8 to 12 years of age.

This paper will present a description of the first two levels - BABIES and PRE-INITIATION TO MUSIC - in which the parents participate together with their children.

BABIES - from 8 to 24 months of age.

GOALS

1. Teach the child to respect rules and know its own limits.
2. Socialization - give the child opportunity to make contact with other people in a pleasant and expressive environment.
3. Rescue cultural traditions - mother sings together with the child old folkloric songs.
4. Give patterns of musical interaction, providing the mother with a repertory to be worked with the child.
5. Stimulate singing and speech - child learns how to sing at

the same time its is learning how to talk.

6. Offer the child an environment where it will have greater freedom to create.

7. Stimulate affection in the mother-child relationship.

8. Develop aural perception.

9. Develop musical sense.

10. Develop sensitiveness.

11. Develop sense of rhythm.

12. Stimulate discipline and, as a consequence, enable the child to concentrate, reason and pay attention more effectively.

PARTS OF A LESSON

1. Free play.

2. Entrance song.

3. Singing time: new song
last lesson's song
reminding of a given song

4. Song to be accompanied by a movement with locomotion.

5. Song to be accompanied by a movement without locomotion.

6. Rhymes - musical games.

7. March - Dance - Circle.

8. Relaxing - Stretching (laying down).

9. Percussion band: Traditional instruments
Scrap-heap instruments

10. Farewell song.

STRATEGY

1. 30 minutes classes - each activity will take about 3 minutes.

2. Each class will have an average of 8 babies under one adult attention.

3. Mothers and children make a circle sitting on the floor. Adults have their legs crossed and children sit in front of or besides

the mothers. In this case, children and mothers should be intercalated.

4. Mother only take care of her child. In case one child take a toy from another one, mother helps her baby to defend itself.

5. The babies' classes are not a formal activity.

6. Children should take part in the free play before entering class. Children have access to a box with musical toys to be explored. Children should play with no adults interference. They should only supervise their children. Adults can make some observation about the sounds produced by the toys, calling the babies attention for those sounds, but can not teach how to handle the toys, enabling children to create different ways to play them.

7. The sound properties should be explored informally. The songs should be presented varying intensity, speed, pitch, timbre without calling the attention of the children for those propertics. The babies should only accompany the songs in a stronger or faster way.

8. Creating sound-exploring exercises should be made using the toy, teeth, hands, feet, animal voices and noises.

9. Teacher could use also rings, rattles and toys that, when pulled or pushed, make sounds, movements or change colors.

PRE-INITIATION TO MUSIC - from 2 to 3 years of age.

GOALS

Enable children to:

1. Develop the ability to beat the pulse accompanying the music.

2. Develop aural perception and the ability to discriminate, identify and classify sounds, perceiving similarities and differences.

3. Develop the ability to concentrate, pay attention and reason.

4. Be aware of temporal-spacial relationships.

5. Have freedom to explore sound characteristics.

6. Develop visual-motor coordination through movements in musical phrases.

7. Be independent in giving musical answers.

8. Participate on musical activities with other children in an expressive, positive, and pleasant environment.

9. Increase its curiosity towards expressive sounds and the large variety of ways they can be produced.

10. Participate in an environment where there is greater freedom to create.

11. Respect rules and know limits.

12. Rescue cultural tradition learning old folkloric songs, rhymes and dances.

13. Have greater stimuli towards singing and speech.

PARTS OF A LESSON

1. Free play.

2. Entrance song.

3. Singing time.

4. Aural perception - pitch, duration, intensity, timbre.

5. Psychomotor skill.

6. Time and space perception.

7. Relax-stretching (laying down) - breathing.

8. Percussion band.

9. Farewell song.

Aural perception - working sound qualities and notion of time and space will have a special attention in the pre-initiation classes. Now, in a more explicit way children will be encouraged to identify, classify, and discriminate sounds, perceiving their similarities and differences.

STRATEGY

1. The duration of each class should be of 30 minutes at the beginning of the year, and should gradually be extended to 45 minutes.

2. The ideal number of children class is 8.

3. Teacher should slowly introduce activities with children on pairs, during the course of the classes.

4. Since children don't know how to make a circle by themselves, a circle could be made on the floor with a tape. At this age (2 years old) children still don't know how to walk on line.

5. Teacher should be at the same horizontal level as children when in contact with them, sitting on a small chair or on the floor.

6. Teacher should work the children's creativity asking them to complete musical phrases, rhythms and melodies. Make them sing in a microphone or play "freeze and move," are good ways to release their creativity.

7. Teacher could use whistles and toy pipes for breathing exercises.

8. Some simple choreographies could be made on "ABA" form. The lyrics of the songs can also suggest the choreographies.

9. Use books, posters and figures which remembers the lyrics of the songs.

10. Teachers should take the most advantage of the songs, making from them exercises such as dances, movements and percussion groups.

11. In the beginning of the Pre-Initiation, children play together, but divided in two or three different groups of instruments. Every time the music is repeated, the teacher should reorder the group in a way children could play all the instruments.

12. Teacher could use a tape recorder. Ask children to create a song, and after that, show them the recording.

13. Make children dance using a piece of cloth, bandage, a very thin paper, a bladder or other very light object.

14. During the "free play," children can explore the instruments and toys they have in the class.

This paper is submitted for consideration for the Seminar "Vital Connections: Young Children, Adults & Music" 11-15 July, 1994

A Model for Enhancing Music Development Through the Inclusion of Informed Parents and Other Primary Caregivers in Early Childhood Music Classes

Kenneth K. Guilmartin, Director
Center for Music and Young Children
217 Nassau Street
Princeton, NJ 08542

(609) 924-7801

Lili M. Levinowitz, Ph. D.
Asst. Professor of Music Education
Rowan College of New Jersey
Glassboro, NJ 08028

h: (215) 646-5863
w: (609) 863-7383

A Model for Enhancing Music Development Through the Inclusion of Informed Parents and Other Primary Caregivers in Early Childhood Music Classes

Abstract

The purpose of this paper is to construct a rationale for appropriate parent participation in early childhood music classes by examining current research findings in music and child development. Accordingly, a detailed model is described for an early childhood music program that includes both content and practices for facilitating positive parent/child interactions in the classroom and home environments.

Videotaped examples (approximately 5 minutes) will accompany the presentation of this paper. For a description of the content, see pages 9-10.

A Model for Enhancing Music Development Through the Inclusion of Informed Parents and Other Primary Caregivers in Early Childhood Music Classes

Part I: Rationale for Appropriate Parent Participation

The media's popularization of research findings regarding the importance of the early years in children's growth and development as well as the positive effects of early educational intervention efforts have caught the attention of many parents. Subsequently, a large number of parents consider early instruction and preschool participation as necessary to the insurance of their children's academic competence and future school success (Kagan, 1987). Other parents, however, are carefully avoiding such organized activities because they fear for their child's "miseducation" and resultant damage to their self-esteem (Elkind, 1987). Both of these tendencies manifest strongly in early childhood music education where the traditions of formal instruction on an instrument and the disciplined achievement required for performance conflict with the playful, divergent learning styles of young children and the parent's desire not to "push" a child.

In addition to this ambivalence, many adults in our culture also tend to have extremely inappropriate expectations of their own musical behavior, often concluding that they are not "musical" unless they can perform like a professional (Levinowitz, 1993). They often feel this way despite years of lessons or amateur performance experiences. They

consequently tend to feel too inhibited or unskilled to participate comfortably in music and movement activities, even in an informal group environment involving children. Many, in fact, have suffered from musical deprivation (Guilmartin, 1988) and/or poor instruction in their early childhood years. Despite early training or success in music activities, many other adults limit their experience of music to the passive consumption of performances by professionals. Such deprivation and passivity creates a vicious circle of poor modeling for their own children, who are subsequently "at-risk" for normal music development (Levinowitz 1993).

Nonetheless, it becomes more and more evident that the developmental rule of nature is model-imperative: no intelligence or ability will unfold until or unless given the appropriate model environment (Pearce, 1992). Moreover, mounting evidence suggests that parental intervention and interaction styles are linked to competence in their children (Carew, 1976). If the model environment is founded upon the notion that young children learn best by experimenting with the music information they have acquired from the example of their primary caregivers (Katz and Hoffman, 1985), parental inclusion and involvement in the early music learning process is a must. This is true even in the case of parents who present a poor tonal or rhythmic model, as children can adjust their music expression based on discrimination among many models, but the positive disposition to even engage in music activity in the first place is acquired only from primary caregivers.

Their ability to fulfill this role is compromised, however, because they suffer from a number of cultural tendencies and biases. For example,

the public experience of music in contemporary western civilization has been largely limited to the performer/audience model. Because of the ubiquitous presence of the media, the private experience of music is now following suit. The existence of participatory models (family ensembles, community sings, folk music performed for each other by the "folk" themselves rather than professionals) has been severely eroded. In effect, the dominant relationship to music for most people in our culture is to passively consume it rather than create it (Guilmartin, 1990).

Moreover, because their knowledge of music development is poor, and because they have little or no experience of what normal music development might be under better conditions than what children experience in our culture, adults tend to have inappropriate expectations of children's music development (Levinowitz, 1993). The worst of these is the assumption that musical ability is a "gift" found only in some children, and that it somehow emerges all by itself just in time for lessons! Adults understand that language, motor and social skills unfold in a developmental process over time and that there are markers of developmental achievement along the way. They have little understanding of this process in music development.

Although primary caregivers such as day-care and preschool staff often share in the inappropriate expectations for music development described above, most have at least been trained to understand that children show widely divergent levels of development in early childhood. Parents tend to be much less aware and therefore much more competitive. Even trained professionals, when attending a class with their own children,

can tend to lose perspective and pressure their child to participate more like another child!

Finally, the musically untrained parent suffers from neglect (and sometimes, we must admit, derision) on the part of music educators. Even when committed to their presence in the classroom, the results are frequently unsatisfactory, leading music educators to conclude that parents should not be present (Achilles, 1992). Despite the significant progress made towards understanding what "developmentally appropriate" might mean for children in the last decade, music educators have little understanding of what "developmentally appropriate" consideration might mean *when applied to parents* in an informal, participatory, non-performance environment (Guilmartin, 1992). This is not surprising since all of our training and tradition have been focused on quite the opposite kind of environment. How unfortunate this is, since we are in the perfect position to come to the parent's aid and, in fact, need the power of their primary caregiver model to assist us in the education of the young child.

In order to honor the model-imperative of child development yet counteract these cultural tendencies and biases, a music environment comprising both parents and their young children must be created that includes a process and content to assist parents in developing realistic expectations for their child's music behaviors. This process would foster sufficient parental awareness to avoid frustration when their child's new musical skills fail to emerge as expected. It would also facilitate a sense of participatory confidence, competence and pleasure in children and parents alike. Parents and children can then freely enjoy not only the program

content but also the experience of being together while the process of music development unfolds for both parent and child.

Levinowitz and Adalist-Estrin (1993) studied parent-child interactions in a preschool music class that included not only developmentally appropriate music and movement activities, but also a substantive parent education component. The researchers found that parents' perfectionistic and comparative interaction styles were minimized. Instead, they more often utilized a positive model interaction style that encouraged minimal judgements, reasonable expectations and a balance of power between parent and child. The researchers concluded that the parent-child interactions during this program contributed to and possibly enhanced parent-child attachments and the child's self-esteem, subsequently having a positive affect on his/her performance and competence.

Part II: Program Model

The program model used for this study is *Music Together*[1] (Center for Music and Young Children, 1987), a music and movement approach to

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[1]The Music Together early childhood music and movement program has been in ongoing research and development by the Center for Music and Young Children since it was first offered to the public in the fall of 1987. There are currently three laboratory school locations in operation: Music and Movement Center of Princeton, Princeton, NJ; Rowan College of NJ, Glassboro, NJ; Parent Resource Association, Wyncote, NJ. The parent education model discussed in this paper has been fully implemented in approximately 40 USA locations and partially implemented in many more through teachers trained by the authors.

early childhood music development for infant, toddler, preschool and kindergarten-age children and their parents, teachers and other primary caregivers, including childcare and preschool professionals who spend significant amounts of time with the child. As implied by its title, the presence of an adult primary caregiver is considered an essential part of the program, provided he or she *actually participates* in the music and movement activities to the best of their ability. Presentation of this participatory model over time passes on a positive disposition towards active music involvement in the child (Katz and Hoffman, 1985), thus affording her/him the opportunity to, in effect, teach themselves basic tonal and rhythmic competencies by means of this active, playful involvement (Levinowitz & Guilmartin, 1989).

The following significant parent education strategies were developed by the authors during the 6-year history of the *Music Together* program:

1) An opportunity for parents/caregivers to rediscover the pleasure and value of musical experiences with their child through class participation to the best of their ability in song, chant, movement and instrument play activities chosen or developed with their needs and pleasure in mind as much as the children's;

2) Materials for home use, including:

A professionally recorded cassette tape of each semester's songs, rhythmic chants, and "play-along" music. The tape helps encourage music-making outside of class, reinforces the child's experience

through repeated listening, and offers a professional model of intonation and rhythmic accuracy;

A songbook that includes lyrics, melodies, chord symbols, "play-along" piano music, and suggestions for rhythm instrument accompaniment and movement activities;

3) *Music and Your Child: A Guide for Parents and Caregivers*, a written resource book on children's music development and appropriate supportive roles and attitudes for parents. This material is handed out in chapters on a weekly basis.

4) A Parent Education Program which includes:

"Parent education moments," short comments or discussions initiated by the teacher during class time and related to topics in the weekly chapter handout from *Music and Your Child*, or spontaneous comments pointing out examples of music development in the class or interpreting classroom behaviors from a developmental point of view;

A Parent Education Evening presented during approximately the third week of classes. The format of this 90-minute presentation is: a) discussion of their experiences with music and attitudes toward their own ability; b) comparison of how they were taught music vs. what we now know from research about how young children learn music in early childhood; c) both discussion and experiences related

to aspects of the curriculum design, such as the variety of tonalities and meters chosen, the use of songs without words, echoing of tonal and rhythm patterns, and the playful use of simple percussion instruments in improvised "play-alongs;" d) how each adult can help their child achieve what many have found to be difficult, a natural, participating relationship to music in our culture.

These strategies result in greatly increased developmental awareness and also easy familiarity with the musical selections in the curriculum because of the high frequency of use of the home materials (Levinowitz, 1993). Parent/child musical interaction is further enhanced through positive classroom experiences in an informal environment, even though the group format, usually in circle formation, is an inherently formal structure. Circles do encourage more universal participation than a performer/audience model because they alleviate the separation of the raised stage. However, they tend to subvert individual participation and dyadic parent/child interaction to, at best, a leader/follower interaction. This can tend to deteriorate into merely another performer/audience experience, with the teacher in the role of performer. The group/circle focus also tends to subvert the parent's focus on his/her child to comparisons with or demands for conformity to other children in the group. And it exposes musically inhibited or less competent parents to the judgmental scrutiny (real or imagined) of other parents. These tendencies are mitigated by the inclusion of the following two types of class experience which emphasize dyadic, parent/child interaction (see videotaped examples):

Unified music/movement activities in which everyone is simultaneously active with synchronized performances by the adults. However, the focus of attention in this unified group context is a dyadic one: the parent and child are interacting solely with each other rather than with the group.

Non-unified experiences where the activity is simultaneous but the performances are not synchronized, thus allowing for divergent expressions and experiences that are primarlily dyadic in focus.

Dyadic interaction is further enhanced by the teacher's frequent facilitation of its focus: "Teach your Mommy how to do that," "Get your Dad an instrument, too," are typical and frequent interventions. In this manner, the teacher is always facilitating the parent's progress towards the following goals:

1) Participation to the best of their ability, focusing as much or more on their own experience than on their child's performance;

2) Positive, purposeful and enjoyable interaction with the child rather than a controlling or manipulative interaction with the child;

3) Acceptance of a child's choice to not participate and simply observe;

4) Enjoyment and acknowledgement of the more extroverted child's enthusiastic participation, but not overpraise;

5) Tolerance of a child's seeming lack of attention (wandering around the room, for example);

6) Choosing gentle interventions designed to redirect the child's attention to the class activity as opposed to expectations or demands for developmentally inappropriate behaviors;

7) Avoidance of unnecessary power struggles and confrontations;

8) Avoidance of comparisons with other children;

9) Group discussion and acknowledgement of mutual or divergent experiences, such as that most children are very active with the class materials at home even though they may be shy, withdrawn, or prefer an observer mode in class;

10) Acknowledgement and appreciation of individual children's developmental progress, either as demonstrated in the class or reported from home.

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Abstract

This paper is submitted for consideration for the Seminar
"Vital Connections: Young Children, Adults & Music"
11-15 July, 1994
University of Missouri-Columbia, USA

by

Dr. Carol Scott-Kassner
Professor of Music Education
School of Fine and Performing Arts
Seattle Pacific University
Seattle, WA 98119

Music in Early Childhood: The Search for Effective Models of Adult Participation and Interaction

This paper addresses issues of ontological growth in music during the early childhood years and the various roles adults have traditionally played in affecting that growth. The impact of parenting, enculturation, and schooling is examined. Insights gained from that examination are then applied to the search for effective models of early childhood music education, particularly in complex societies.

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Music in Early Childhood: The Search for Effective Models of Adult Participation and Interaction

As I considered the title of this seminar, I asked myself a series of questions:

1. How vital is it to have connections between adults, young children, and music or will children grow musically without regular musical involvement with adults?
2. If adult/child connections are vital, what kinds of connections seem to be effective and to what ends?
3. Are there any educational models, formal or informal, which seem particularly promising and why?

To help answer these questions, I constructed the following diagram to help in thinking about these relationships. [**Insert diagram**] The child is at the center, representing the potential for musical growth.

At the next level are questions of how genetic (inherited) and ontogenetic (developmental) factors affect the musical growth of the child. This assumes that each child is innately musical and capable of musical growth. It also acknowledges that some children are more musically gifted than others and that such gifts emerge early and cannot be viewed as the norm.

The third level of the diagram highlights factors external to the child, which I have called environmental, representing adult participation in the musical life of the child. These three areas include: a) the parents and/or family, the first and most immediate source of musical stimulation for the child; b) enculturation, which includes any agent from the media to members of the broader community that influences the musical socialization of a child; and c) schooling, defined as structured training in music meant to be educational. I will try to show relationships between these layers, particularly as it relates to adult/child interactions in music.

My first question, about the nature of musical intelligence and whether adult musical involvement is necessary to its initial development, seems almost absurd to ask. After all, except in the most tragic of situations, we do not raise our babies in isolated rooms with minimal adult contact. At the same time, in the United States and perhaps elsewhere, we are

increasingly seeing young children raised with minimal stimulation except for television's blinking eye and erratic sounds. In those situations, are children still growing musically?

The answer to that question appears to be a qualified yes. The human organism is clearly programed to respond to sounds, often by grouping them. Infants are sensitive to pitch and rhythm patterns, and vocal timbres. Their wide-ranging vocalizations prepare them for language and also for music, although non-language sounds appear to be stored and processed differently from the sounds of language (Deutsch, 1982). Infants at the age seven months have already begun to form a sensitivity as to what constitutes an effective melody in their own culture (Trehub, 1990). Young children automatically sing, chant, move, and experiment with sounds as a means of self-expression, as well as discovery. Accuracy in singing, as well the coordination of the body in time with music, seems to increase as the child develops both cognitively and physically. Gradually, around the age of four, children come to form separate thoughts about sounds and can often use simple language to describe their perceptions.

Gardner, in his recent (1991) book *The Unschooled Mind*, calls this kind of knowing, *intuitive knowing*., which prepares the child to later become a *disciplinary expert*. This early knowing grows as the child grows but may not develop further unless educated. The patterns of this growth in music have been much documented and discussed in recent years. [Musical production has been documented by Moog (1976) and Davidson, et. al.

(1981) among others. The growth of musical thinking has been summarized and discussed in Hargreaves (1986) and Dowling and Harwood (1986). Comprehensive summaries of a great deal of the existing research in music with children from birth to age seven appear in Scott-Kassner (1991) and McDonald and Simons (1989).]

Musical intelligence appears to develop early and to be fairly independent of other types of intelligence (Gardner, 1983). The study of musical savants (Howle, 1992) shows that it is possible to be gifted musically and low-functioning in other areas. Additional evidence for a separate musical intelligence comes from the study of musicians who have been brain damaged (Gardner, 1982).

Studies of musical giftedness shows that it emerges earlier than other kinds of giftedness, usually by age six (Shuter-Dyson & Gabriel, 1981; Bloom, 1985). Although a genetic factor for musical genius has been postulated, there is not clear evidence to support that theory. In fact, it is clear that children who are highly gifted musically can be born into families with no clear musical gifts or background. (Shuter-Dyson & Gabriel (1981); Bloom, 1985). What is evident is that children from birth or even in utero to age six are extremely sensitive to music and that the preschool years are crucial times for the growth of musical intelligence and early demonstration of musical gifts.

So, if musical growth has an ontological/intuitive base, just what is the impact of adults in enhancing growth during these years? John Blacking, addressing the ISME Congress in Bristol, England in 1982 said,

> Human beings are not born human. They are born only with the potential to become human. For example, the most characteristic human attribute of speech is genetically based. Normal human organisms inherit biologically the capacity to speak, but speech will not emerge even in a healthy person unless it is developed through social intercourse . . . . We cannot become human without being social and without learning. (p. 11)

Parents usually play a very natural and often unconscious role in stimulating musical growth in infants through their verbal/musical play. Papousek and Papousek (1982) have mapped these vocalizations and identify both the babytalk and singing/rhyming games parents have traditionally played with infants as crucial to the development of language, music, and creativity. They decry the decrease in these kinds of interactions in much of the industrialized world.

Various studies of the number of musical children to emerge from homes where one or both parents are musical suggests a strong correlation (Shuter-Dyson & Gabriel, 1981). Recent research on the musical roots of highly talented pianists (Bloom, 1985) suggests that parental support of a child's musical interests, rather than parental muscianship, is the most important factor. A number of studies show that early musical experiences in the home have a positive affect on the skills of singing and pitch and rhythm accuracy as well as attitude toward music (Kirkpatrick, 1962; Moore, 1973; Sloboda, 1990; Atterbury and Silcox, 1993). Not surprisingly, children who are raised in homes where the parents make music with them as well as express high value for music are much more likely to become musical than children raised in musically deprived

households.

A separate question involves the role of enculturation in stimulating musical growth. Children come to know much from many sources both in and outside formal schooling. Margaret Mead (1942) makes the distinction between this type of education in simple (non-literate) and complex (literate) societies as a:

> shift from the need for an individual to learn something which everyone agrees he should wish to know, to the will of some individual to teach something which it is not agreed that anyone has the desire to know (p. 633-9)

This brings to mind the well-known saying from Bali, "We have no art, we do everything as well as we can." What can young children do musically in cultures where music and life are not separate? Buckton (1983) found that first graders from Maori and Polynesian backgrounds where singing is an important aspect of life were far ahead of other children, not only in melodic singing accuracy, but in their ability to sing in harmony. Kwami (1992) indicates that some African children able to perform complex rhythm patterns learned by listening, watching, and doing. Blacking (1967) also found this true in the children of the Venda of South Africa.

Campbell (1991) in a 1987 study of child-songs on playgrounds in Indiana found a rich tradition of oral literature which had been passed among the girls. Harwood (1993) found that an apprenticeship system of experts (young or old) teaching novices is common to the transmission of playground songs which are often made more difficult through the addition of complex patterns of body percussion.

The Kodaly and Suzuki systems of direct schooling in music are illustrative of the impact such programs can have on a wide range of preschool children. Very young Kodaly-trained children generally sing in tune, sometimes in harmony (Miklos, 1991), maintain rhythmic and beat patterns, and improvise melodically and rhythmically. Often Suzuki-trained four-year-olds can play, with great facility, works as complex as Vivaldi violin concerti that they have learned by rote. Such programs indicate the musical potential of preschool children and help to challenge the notion that musical abilities exist in only a few individuals.

Therefore it is clear that the adult/child connection in music is vital. Yet, in spite of increased access to early childhood education, the majority of children in complex societies are growing up musically deprived. In cultures where being musical is not universally valued, what can be done to enhance the musical growth of young children?

One tactic would be to educate parents to make music with their infants and preschoolers. Many successful model programs from throughout the world have been shared in this forum. However, a great number of those programs are limited in their outreach and appeal mainly to middle and upper middle-class parents who can afford the time and money to enroll. Programs in the United States with young, economically- deprived mothers are focusing on the development of family literacy.
What if we found ways to add child/parent music making to those programs, perhaps using music as a vehicle to broader literacy?

Another tactic would be to change the ways we train early childhood

educators to utilize music with children . Children can grow a great deal musically from interacting with live and recorded music, instruments, and each other. A play-oriented environment, rich in musical materials, has been advocated by Andress et. al. (1991), Kenney (1989), and Littleton (1989). An extension of that into a movement environment has been suggested by Metz (1989). A cognitive-discovery model, advocated by McMahon (1992), is common to Montessori settings as well as that developed by Weikart (Ransom, 1979). In each of these, the children take the lead. Perhaps, we should quit trying to teach preschool teachers to sing in tune and lead music lessons. Instead we might teach them how to create environments and activities to stimulate musical exploration and discovery and how to recognize and reinforce musical behaviors.

Finally, we might wish to develop new models for involving music educators and musicians in early childhood settings. Barrett (1992) from Tasmania, suggests a natural learning model based principles in the acquisition of literacy. Musicians and\or music educators would become resources to children by: a) immersing them in music, (b) demonstrating music making, (c) engaging their thinking and attempts at music making, (d) setting expectations, (e) reinforcing their explorations, (f) helping them use music, and (g) giving them feedback. Models built on the evolution of creative thinking have been developed by Pond (1980) and Upitis (1989, 1991.) In both of these instances, trained musicians are present to interact with the children as they engage in music making and thinking. Achilles (1992) explores similar ideas in the context of preschool children's

potential for critical and creative thinking in music. These kinds of contexts could become rich settings for the use of music technology and the many wonderful software programs designed to teach very young children to think about, explore, perform, and create music.

Music educators wishing to use instructional models which are more teacher directed may want to develop programs where music specialists, who are experts in early childhood education, are hired to implement programs in several schools. Increased justification for this approach may emerge from ongoing studies of the neurological impact of music making on the spatial reasoning skills of three-year-olds including children from inner-city environments. Researchers from the Center for the Neurobiology of Learning and Memory and the University of California, Irvine, have found that musical involvement, both with singing as well as keyboard experiences seems to impact the formation of complex spatial relationships (Rauscher, et. al., 1993).

Though no single model will provide all the answers, we need to work together to envision and implement new possibilities - not because we want every child to grow up to become a professional musician, but because we know that being musical contributes to a lifetime of joy and satisfaction.

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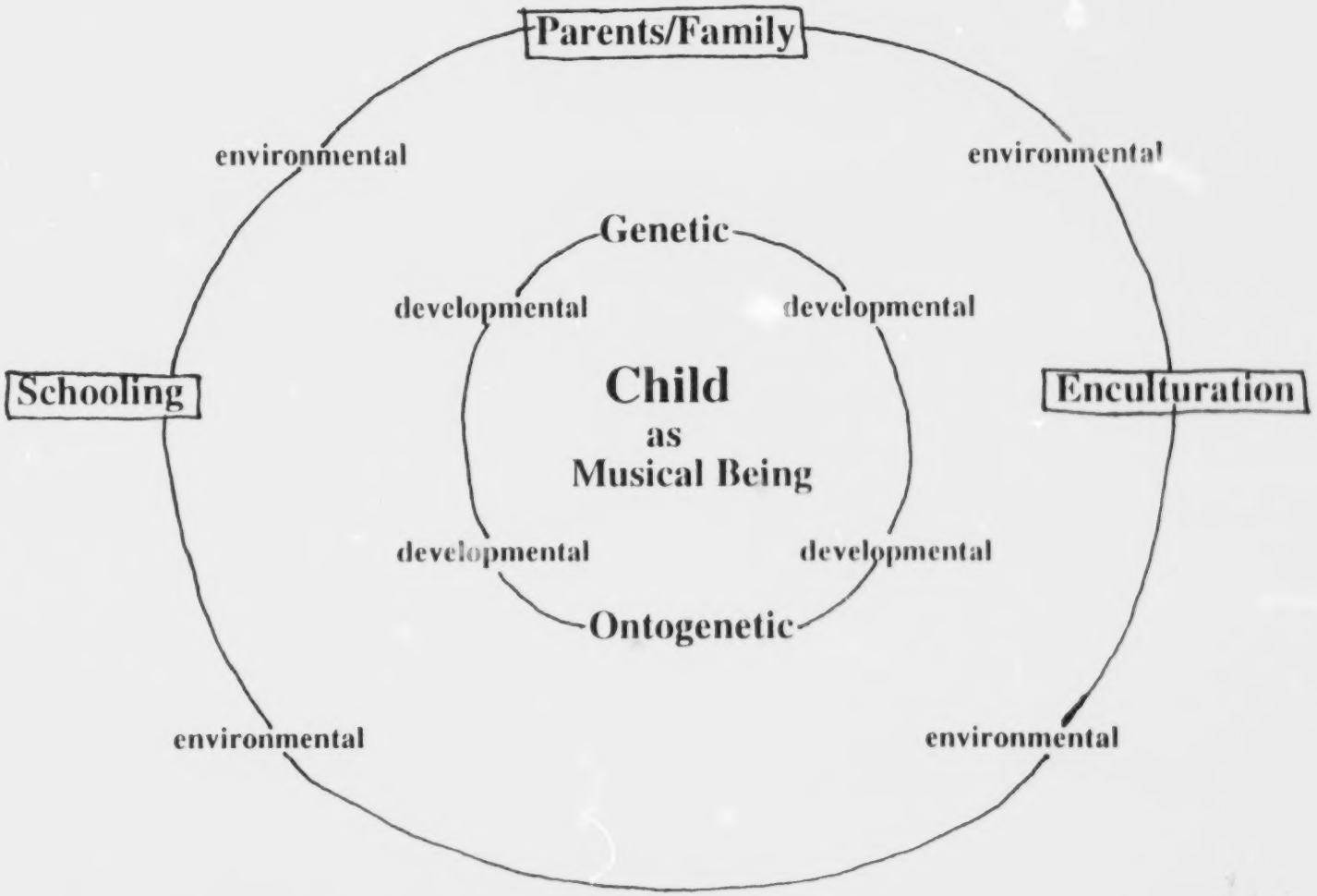
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environmental
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Genetic
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Schooling
Child
as
Musical Being
Enculturation
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Ontogenetic
environmental
environmental

Maria Seeliger
Professorin für Elementare Musikerziehung
Staatliche Hochschule für Musik Heidelberg-Mannheim
N 7, 18
68161 Mannheim
Germany
priv. Brunnenwiese 2
69483 Wald-Michelbach
Germany
Fax: 06207-82233

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This paper is submitted for consideration for the Seminar "Vital Connections: Young Children, Adults & Music," 11-15 July, 1994

ABSTRACT

Vital Connections: Young Children, Adults & Music. Training of early childhood music educators at the Musical University in Heidelberg-Mannheim / Germany

A good balance between the adults (parents and teachers) and the children is essential in music education. The children have their own music aptitude, their own way of self- and music expression; whereas the adults tend to shape the future generation. But the child is like a seed of a plant - the whole flower being already inside.
How is it possible to find the right balance?

At the Musical University in Heidelberg-Mannheim we train early childhood music educators. The students may study "Elementary Music Education" as a main subject within 6 - 8 semesters, but only together with an instrumental or a vocal subject. They graduate with a diploma and have good chances to find an employment in a municipal music school or in colleges and academies.
Eight different subjects belong to the course of study "Elementary Music Education":
Didactics and methodology, practical exercises, teaching exercises, improvization / creative expression with movement and dance, improvisation with instruments in elementary music, speech training and rhetorics, voice training.
The Musical University in Heidelberg-Mannheim offers the students practical teaching with children in the university during the whole study of 8 semesters.

Further, I'll describe with the symbol of the wheel **our model of pedagogical practice with children**. The human being is always the focus of interest. With music, dance and speech, the children are touched and express the impulses given by the teacher in their own way, by making music and dancing. Staying with the symbol of the wheel, what could mean the different parts of it, for exampel: the outer circle, the spokes and the space between, the hub and the inner circle?

If possible, my presentation should be combined with practical exercises (about 15-20 participants).

Maria Seeliger
Professorin für Elementare Musikerziehung
Staatliche Hochschule für Musik Heidelberg-Mannheim
N 7, 18
68161 Mannheim
Germany

priv.: Brunnenwiese 2
69483 Wald-Michelbach
Germany

Fax: 06207-82233

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Vital Connections: Young Children, Adults & Music.
Training of early childhood music educators
at the Musical University in Heidelberg-Mannheim / Germany

A good balance between the adults and the children

A good balance between the adults (parents and teachers) and the children is essential in music education. The children have their own music aptitude, their own way of self- and music expression; whereas the adults tend to shape the future generation. But the child is like a seed of a plant - the whole flower being already inside. The adults should only watch and observe like a gardener, provide the best conditions, help to facilitate the growth of the flower - and admire the beauty in all stages.

How is it possible to find the right balance?

According to the research done by Professor Gordon, the highest level of music aptitude is rooted in the very young age. So the parents can nurture this musical potential by singing lullabies, making funny bounces, wiggles, tickles, clapping and tapping with the baby. All rhythmical rhymes and songs go together with delightful body-games, feeling different parts of the body, expierencing with

gravity and balance and, they help to integrate all sense stimula, digesting it mentally and physically. (re. A. Jean Ayres: Sensory Integration and the Child. Western Psychological Services 1979) - Look, how the child is always unconsciously learning by doing, try it in the same way with music, rhythm, tones and sound.

Turning again to the picture "flower and gardener": for the adults it is necessary to provide the best conditions. The gardener looks after good earth, humus soil, where the little roots can find the right place and food for growing. The musical earth and roots are the cultural tradition. The adults should sing folksongs and dance, play traditional games and rhymes. Naturally, the gardener is responsible for water, warmness, light and sometimes special humus - not too little, not too much. In music teaching it is very difficult to find the right degree to support the children and not to overfeed them, so that the individual, especially in a group, is neither asked too much nor too little.

From my point of view, the balance between adults and the child is given, when the parents and the teachers help the child to find his or her own inner teacher. "Help, that I can do it alone." is one of the guiding principles of Doctor Montessori, the well-known phycician and teacher.

Training of early childhood music educators at the Musical University in Heidelberg-Mannheim

With this in mind and as a background idea, we, the teachers of the Musical University in Heidelberg-Mannheim train early childhood music educators.

In 1981 I was appointed as professor for "Elementare Musikerziehung" at the Musical University in Heidelberg-Mannheim. I had the chance to build up this course of study from the very beginning. At the moment, we are a team of 7 assistant professors and myself. We all graduated from Musical Universities such as the Orff-Institute in Salzburg, further the Musical University in Heidelberg-Mannheim and similar universities. Most of us were trained at the Orff-Institute, so the principles of the Orff-Schulwerk are our musicpedagogical guide lines.

The students may study "Elementary Music Education" as a main subject only combined with an instrumental or a vocal subject. Some study both subjects at the same time and others first the instrumental or vocal subject and afterwards they specialize in the pedagogical subject "Elementary Music Education". So the

students are of very different ages, from 19 to about 40 years. There is a good mutual influence.
The course of study "Elementary Music Education" takes 6 - 8 semesters and students graduate with a diploma. The examinations consist of a dissertation, practical examination - a model lesson with a group of children - and two colloquia about didactical and methodological questions. The graduates have good chances of finding an employment at a municipal music school or in colleges or in academies.

I'll now describe the different subjects belonging to the course of study "Elementary Music Education" at our school:

Didactics and methodology: 2 hours per week during 8 semesters
The students learn:

- goals and contents of Elementary Music Education
- research and description of guidelines to perform a lesson
- basics on developmental psychology
- different literature on teaching methods
- methodology in speaking and singing, moving and dancing, playing instruments of elementary music, listening to music, theory of music, getting to know traditional instruments etc.

Practical exercises: 1 hour per week during 6 semesters

- Students test and experience the effects of elementary music for themselves and within themselves.
- They develop methodological ideas by improvising and performing pieces of music, speech and dance.

Practical teaching: 2 hours per week during 8 semesters
This is the most important subject.

- From the first week of study the students watch children lessons, that are directed by a professor.
- The advanced students teach - being supervised - children of different ages in these lessons.
- During the last year of their study, the students have a group of their own.
- They will have to do the practical teaching examination with their own group.

Presently, we have - at the Musical University in Heidelberg-Mannheim - ten groups of children of the age of 4 to 6 and 7 to 9, one group with parents and babies (about 1 year old) and one group with laymen adults, who want to sing and dance in the elementary way without knowing notes and instruments.

Improvisation / creative expression with movement and dance: 2 hours per week during 4 semesters

- Students experience their own body and develop sensibility for movement.
- They create and exercise with movements, improvisation and expressive dance, as an individual and in a group, with and without additional subjects, with and without music.

Improvisation with instruments in elementary music: 1 hour per week during 2 semesters

- Students are experimenting and exercising with percussion-instruments and different kinds of xylophones
- training techniques
- improvisation and creative expression
- studying elementary composition and arrangement.

Speech training and rhetorics: 1 hour per week during 3 semesters

Voice training: 1 hour per week during 4 semesters (in small groups or alone)

So, you see, the students of the course "Elementary Music Education" have to make many practical and theoretical subjects. They play themselves an instrument for professionals and learn how to make good elementary music, as well with children. In our way of training, they are not fixed to a certain teaching curriculum; they get practical experience with elementary music in singing, dancing and playing instruments, they acquire knowledge in different teaching methods and turn creative by practising in their own way. The own inner teacher can be set free.

Our model of pedagogical practice with children

The central theme in pedagogical practice with children is similar.

I would like to use an image that came to my mind when I was thinking about how our courses are conceived. As we all know, children as well as adults - who still like to play - are strongly attracted by pictures, both emotionally and intellectually. A picture can awaken fantasy and creativity, it can stimulate the imagination. It can allow us to play with shapes and colors, with signs and ideas, and - when interpreted as a symbol - it can also contribute to our understanding of an idea.

To me, an adequate image that can appropriately be used in decribing didactics and methodology of Elementary Music Education is *the image of a wheel*:

The wheel being round is already illustrated by the fact, that the children usually form a circle in the course. No one is "in front", there's nobody "in the back". Everybody is equally important, everybody is "in the first line". - For this reason, the courses include many games of "making contact" and "getting-to-know-each-other". The participants' personal and social aspects form the basis of all further musical and dancing actions and interactions. So, the exercises we offer are designed to reinforce the development of interpersonal skills and, at the same time, we attempt to support and strengthen the individual in his or her own musical personality.

The roundness or the outer circle also expresses the unity of music, dance and speech. In the child, these three elements are still experienced as an integrated "wholeness" - as they are in the adult who has "remained a child". This idea of unity, as you know, is based on the principles of the Orff-Schulwerk.

Staying with the wheel as a symbol for Elementary Music Education, I see *the spokes* representing various musical impulses that can be provided by the teacher:

- listening:
  - to achieve a readiness and an ability to listen to sounds, tones, rhythms and appreciate a wide spectrum of music
- making music by speaking:
  - speech-expression
  - rhythmical rhymes
- making music by singing:
  - traditional and foreign songs
  - creating songs

songs with fingergames and dances
songs with accompaniment

- movement and dance:
  body and movement awareness
  improvisation and expression
  performance and dance

- playing elementary instruments (using hands and feet, the whole body as an instrument, percussion instruments, different kinds of xylophones and self-made instruments):
  finding special sounds, tones and rhythms for a poem or a story
  playing rhythmical and melodical patterns
  playing songs and instrumental pieces
  improvising
  playing their own feelings and expression

- getting to know traditional instruments, especially the instruments the children might begin with after Elementary Music Education:
  hearing, touching and trying various traditional instrument, and being observed by an instrumental teacher
  resulting of getting a personal relationship to an instrument

- basic music theory:
  to get to know elements of music - loud / soft (dynamic); quick / slow (tempo); long / short (rhythm); high / low (pitch);
  rhythm and tonal patterns
  musical forms and notation

The teacher makes the choice of the topic of the lesson and is responsible for the depth and the extent of the learning experience he / she has chosen for the children. He / she always has to observe:
What is of interest to the child?
How is the child motivated?
What can we offer the child that relates to his / her inner and outer world?
What kind of games, texts, songs, dances can challenge the child to active participation with which he / she can identify?

In an ideal situation, the teacher's choice and methodology should be so well-suited to the age group and the people being taught that the contents of the exercises and games reach the very soul of these human beings. To me, a person's very innermost self - the "center", the core, the essence - can be symbolized by

the hub of the wheel, the inner circle. When the impulses given by elementary music touch the inner self of the participants, they become free to express themselves individually through music and dance. Something very unique, something creative can emerge .... something that fills *the space between the spokes of the wheel*, something that fills the gaps between the music notes.
In this way, the parts of the wheel - the outer circle, the spokes and the space between, the hub and the inner circle - become an unity. The wheel "Elementary Music Education" moves on, makes jokes and creates joy, stimulates new experiences the whole life through ...

Now, this might sound a bit philosophical. But for me, the image of the wheel illustrates very clearly my concept of elementary music education :
The human being (no matter what age) is always the focus of interest. People are touched by music and dance, and - whatever technical level they have gained up to this moment - they express the above mentioned impulses in their own way by making music and dancing.

Notes:
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Orff-Schulwerk. American Edition. Music for Children. Volume 1, 2, 3. Schott Music Corp. 1977 / 1982

If possible, my presentation should be combined with practical exercises (about 15-20 participants).

Berit Uddén
University of Örebro
School of Education
Mogatan 7
S-702 13 Örebro
Sweden
FAX (+46)19 12 95 29
Telephone (+46)19 30 10 00

This paper is submitted for consideration for the Seminar
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Developing the educational connections in the Swedish Preschool: How do we integrate the theories with musical practice? A Model for in-service training in daycare centras purposing everyday music with young children

Asking the right questions is the issue for all research. I mean that this would be the foundation even in the daily work with music in the groups of children in the daycare. But my experiences from 20 years in teacher education and my visits under my students practice often give the impression of "we already know what to do in music". The repertoir is given and how one does it is a tradition: "that's music with children". You seldom call in question the traditions how to performe the music, and the choice of songs in the connection with the child's emotions, and what the child can understand or even what it can manage in its body. This in spite of that teacher training gives a lot of theories in developmental psycology; it is very hard for the common preschoolteacher to join her theoretical knowledges with practice in music. It is as musicmaking "takes over" - it is so hard to sing and play well - so the selfimage with the adult comes in centre, and she forgets the children. The demands on skills in musicmaking can be so high in a staff so nobody dares to lead the singsongs.

In the nineteen seventies big social programmes were biult up in Sweden and we got daycare centres with places for a high percent of the children. The 6 year old child must attend the compulsury preschool year, and children from about one year

could get a place in a community nursery at a daycare centre. Special centras were built with mostly 3-4 different aged groups. The youngest from 1 to 3 years in one group (about 12 children), 'family'-groups: from 3 to 5 year (about 15 to 18 children), and one group with the six year old children.

The Government made the guiding educational principles for this public sector. The most important psycologist even in Sweden was Jean Piaget and his theories of constructive developmental stages. But in our country we had a hard time to integrate his ideas with musical development, and we have had no research in this area. I witnessed the "for-music-bad" decade from about 1973 to 1983 when it became out of date gathering the children in groups: the singing and dancing were out! It was a decade of the individual in education. 1983 a proposal for a new educational program was delivered, and the Government just made it possible to apply for money for developmental work within the preschool. We got the idea to do this development work "Ljud och rörelse i förskolan" (Sound and movement in the preschool).

At this time I had attended my first ISME-conference (Bristol, England 1982) where I listened to Barbara Andress. Much of my first inspiration to do this work came from her book *Music Experiences in early Childhood*. Bertil Sundin (Sweden, chair of the ISME Commission of Research) criticized at that time the teacher training programs in Sweden and he discussed the question "Who would be the leader of music in the preschool: the music teacher or the preschool teacher." In the early 80s the community discovered the "nonemusic" in the preschool and a lot of developmental works with statefoundings started with companion music teachers out of a model from the compulsary school. It is of my opinion that this showed a ambivalent wiew on the gouls for music in preschool; music as object with wellsinging children as goal in-stead of music as an important part of the child's life. My hypothesis is that it must be the preschool teacher who is the best musicleader besides the parents. She meets the child every day and becomes so an important person for the child. What this important person(s) do(es) with music creates the deepest impressions with the child. Our society is nowaday so technified and conveniant, so we adults don't use

our bodies ourselves when we move around/travel or when we "make" music etc. We sit in our cars and in the livingroom in front of the TV-set or reciever. We don't have to make our own music any more. The living song dies. It is only in communication with the smallest children we do sing everyday. The young preschool teacher stands with one foot in the medium world full of this machinery and with one foot in the nursery where the children need the singing, acting and playing adult. How shall we manage to do this transformation in a couple of years in the teacher training school?

I witnessed a great need of further education in music in the nursery schools, and lot of teachers were unsecure of what to do. They thought they did not got enough training to integrate the developmental theories and how the young child learns with the musical practice with children. Besides that a lot of the teachers said that they are no good at music.

A model for in-service training with preschool teachers in daycare centres

Our motto: Make the living music a part of the daily life in the nursery and daycare in singing, dancing and playing games with the children in a simple natural way! Because we know that song, sounds and movement helps the child to percieve the world around, and to develop its skills and abilities in different aspects. It is a question of starting somewhere and to dare to expose yourself. And in a professional way "perform" and interpret the cultural heritage of children's music on the children's conditions, and at the same time be concious of the consequenses of your acting and your choice of material and repertoire. That must of course involve the medium world too.

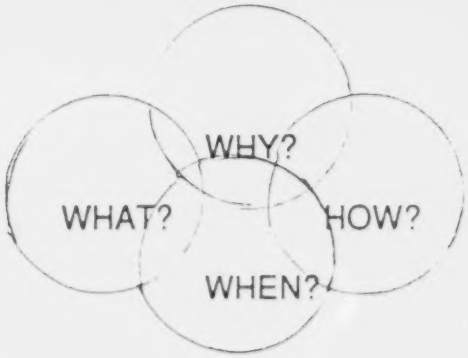
In our model for in-service training in the daycare centre we demanded that

1 - the whole staff had to be involved, i.e. preschool teachers, nurses and even the cook

2 - that in our network of seminars, workshops and lectures as many as possible should participate (though we had to do most of this in the daytime).

This is the picture of our work: it is like an eye which see and observe the child and the music together. Through researching one's work and observing both oneself and the music you chose for the children, and how the children percieve, experience music and are stimulated to learn of what is presented for them.

We started the discussions out of the natural questions Why, What and How and added When, because we must adapt the first questions to the developmental stages where we find the children in our group.



Our purpuses were to get the teachers

1 - to analyze their work: to put in question the traditions in the work with music to prepare them for changes:

Why do we organize the music as we do?

why do we chose to sing this and that song?

why do we perform this song as we do?

why dont we do so and so....?

2 - to ask questions from the child aspect (actively remembering knowledge in developmental psycology in aspect of music and movement):

Why do we sing, dance and listen to music with children? Does it contribute to the development of the child?

Which type of songs do suit the one-years-old and which the fives? On what conditions? Melody, rythm, words, content, acting?

What can the child manage in its body when it is two and when it is four? With arms, hands, fingers, legs, balance, run, crawl 'etc.

What does the child understand of the language, ideas and concepts in the songs, in different ages?

Which emotions do different songs/dancing/music awake with the child?

3 - to ask questions about the music leading role:

How do I communicate with the young child in different developmental stages, cognitive, emotionally and socially with my language, in my way doing the music?

4 - to ask questions from the level of group/department (actively knowledge out of social psycology in the aspects of music and movement):

How do we organize the grouping in the singsong-time? Can we manage to make different aged children interested in the same program in the same manner at the same time?

Which type of activities can we manage with a group of 4, 12 or 40 children? In the same age or in different ages?

5 - to ask questions from social/cultural aspects, the level of communication within the centre and with parents/families:

Does music have any social function in the centre?

How do we organize communcation over different departments?

Can music help to communicate with parents/families?

What musical culture do we have?

Do we support every child in its culture? Children with different backgrounds, girls, boys?

6 - to ask questions about planning the setting, the materials and different activities:

Does the room inspire to music? Can you see the reciever/radio? Is there any pictures of music/instruments?

How do we expose the instruments, song-books etc?

How do we plan, teachers together/alone?

Criterias for how to plan different activities? Time/ /continuity/content etc.

7. - The teacher: to ask oneself:

How do I act and perform music?

Am I prepared? Music/lyrics by heart?

Do I follow the children? Take inspiration from them? Sing in there voice-level? Supporting everybody?

Nervous in front of the collegues? Do I have fun?

What is the most important skills in musicmaking with young children?

What did we do?

My first orientation was the setting - what I saw in the daycare centre - signs of music listening - making - things like drawings, pictures musicequipment, instruments, books etc. I was of course informed of the situation for music in the centre, when and where it used to happen and what material and equipment they had. I asked for to join different groups of children in their singsongs. I analyzed (wrote it down) what I experienced and put questions afterwards to the leader focusing what she thought the children had experienced and how different children were participating in the program, and we discussed different reasons why e.g. "Sara did not sing" etc. We also used videotaping as means for observations, though we know that it may be disturbing, especially for the adults (some of them refused!). The camera did focus the children in order to registrate their responses to what the leader did. When analyzing afterwards and repeating the film we learned to see more and more of the situation, focusing different children and different aspects of skills e.g. language, melody, rythm, other activities. To hear the sounds and song better we closed our eyes. The leader could establish that a lot of what happened she never had noticed when it was going on. "Next time I will think of that and that!" The teachers were asked to write evaluations themselves in order to be used to analyze their work in a strict manner and out of that to develop it.

In the daycare centre we did the music more visuable through putting e.g. the guitar on the wall where both children, parents and staff could see it. One effect of that was that the parents started to use it besides that the children more often asked the teachers to play on it.

Once a month we had a seminar with delegates from about 10 daycare centres. We prepared and studied (litterature, own observations and evaluations, videos from the main daycare centre) different aspects of children and music education. The needs for "new" repertoire were large, and many of the teachers wanted to play the quitar. In a couple of centres we started up groups for guitarplaying. Different staffs prepared songs out of a theme (e.g. Water, Birds etc.) and printed the lyrics

before we met an evening and sung and played all the songs, which we taped in order to remember all the melodies. The lessons on the guitar took place under the daytime, and it was hard to get time, so we just sat in the middle of the play room among the children. They found it most interesting and they participated in the song, even when it went in slow motion (because the fingers on the guitars had to change positions)! Of course I took classes of my own sometimes to show the staff music activities, that they did not had tried before, e.g. listening to music and interpret in movement, drama and/or in painting. Another very popular activity I introduced with a preschool group was "how to play the piano".

We arranged workshops a couple of times in the main daycare centre. The personnel then asked for special content/activities, e.g. how to manage the childrens instruments? Most preschool teachers have a bad conscience about the instruments. Instruments exist in every daycare centre but they are often stored somewhere. We worked in the simpliest ways in using this instruments and discussed why we shall use them, how we chose the instruments with the most beautiful sounds and out of how the children in different ages can handle them. Other workshops we had were e.g. in listening and creating sounds and music to rhymes, verses etc., in dramatizing songs. These workshops ended in different small performances for the children at the end of the day.

Some discoveries

During the one and a half year with the project in three different main daycares we did some simple experiments. One idea was that the 2-3 years old were very good at imitating singing tones but their tongue couldn't form every sound in the language. So in one setting with a group of about 8-10 children in this ages I asked them to sing some wellknown songs without words. It took some time for them to aboundon the words they used to sing, but soon they followed me, and most of the children sang the whole melody, very much in tune. Even the children who normally only participated with some words in the song could sing every tone. I experienced

how happy the children were to succeed to join the whole tune in this way.

Another idea was to focuse the problem with tempo in the body contra the tempo of the tongue. We know that the child's pulse is fast and that the child moves better in time with faster tempos when runing, drumming, clapping. We also know that the communicational language development depends much on the motoric growth in the tongue/mouth. Even if the child understands and has something to say/to sing, perhaps it can not formulate the right sounds in time. We sang the same playsong in different tempos and observed what happened from the aspects of moving with the pulse and singing words.

Our experiences were that quite young children followed in drumming, clapping hands/knees (elementary movements) if they did not sing and if the tempo did not get too slow. Even a one year old girl could for more than 10 s. follow a common puls if it was faster than 120. This we of course know before but the preschoolteachers had to observe this for to understand that it is of importance to chose "quicker" songs if the children should participate in this sort of movements. On the contrary we experienced that it was easier for the children to express the lyrics in a slower tempo. This puts the singing of traditional playsongs with young children into problems: what is most important for the child? - to participate only with the body or only with the song/the spoken language? Can we find a way to give the opportunity to develop both through a varied repeated way to sing songs?

The idea with playing piano with the 6 year old children was that you must engage the child in a meaningful problem. There was a piano standing in the big hall in the centre. Most children maltreated the piano because they didn't know how to use it. The piano was closed for this kind of experiments and only used by one of the teachers who could play. The purpuse was not to teach them how to play the piano but to get them to understand how you can play melodies on a keyboard. We all know the old educational means to colour the notes both on the paper and the keyboard. What I did was to put copied uncoloured noted songs before the children. I coloured a scale on the paperboard, every note followed with a coloured letter. (I even

included F sharp and B flat because we had to use this tones in some melodies.) We sung together the scale up and down some times and I explained how they could colour each note on the paper. The preschoolteachers made observations on how the children managed the task to colour the first melody (Twinkle twinkle little star). It was very easy for most of the children to understand and do this. They helped each other to follow the lines and check what the note was called and which colour it had. I invited the children two by two to come to the piano. The keyboard was prepared with coloured letters for each key and I only pointed out where the C was and asked them to play from the sheet they had coloured. I asked them to use the right hand but to play with any finger. It was amazing to see how easy it went for most of the children; they played directly with very little mistakes. After that I asked them to play without looking at the notesheet. I was as easy. They got more songs to colour and then they were inspired to go to song-books for their favorite songs and start to paint whole staffs and notes for themselves. This experiment awoke a big interest for the piano, and the children started to play any melody by ear.

Another experiment was music as social means when some children were to be acclimatize in the older group. The younger group (1-3,s) and the group from 4-5 lived next door, and they of course knowned each orther. We decided to have a common sing-song group. I prepared the older children to take care of one younger child each. We rehearseled some knee-songs: fingerplay, clapping and some other well-known children's song, including one to move around the room. Each older child was asked to chose "her/his" smaller one and for the rehearsel we used some big dolls to keep in their knees and do the songs with. This rehearsel was in the morning. After that all the children went outside in the garden. We observed how the older children contacted "their" child in the playground outside (although we had not suggested that!). Just before lunch we gathered them in the hall to sing and play. It was really fantastic seeing how the older children took response for "their" small child. How they in a very clever way lead the younger ones and teached them how to do the play-songs. We thought they growned a little bit in taking this response and we noticed

system of the child is, means Bjørkvold, the spontanious song a part.

I do not hesitate after this work "on the floor" in saying: it is how the leader behave with the material and how she listens to the children and follow them on their way to understand and to manage their body and singing voice in music. The educators best way is to be the companion, the playing friend, not so much the way of taking the instructor/teacher role. It is naturally impossible for the adult to play games in the same way as the child, but she must know the key to play, and she must know how to use the young childs way of learning through playing, actually experimenting and testing.

The most vital in the connections between young children, adults and music is perhaps not in the first place the choice of repertoire and activities, but how the important adult behave and do, how she 'play' with music as means in the communication game with a great knowledge about how children develop in every aspect. It is the interpretation in a cultural setting that children learn about.

Litterature

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Cobb, E. (1977) *The Ecology of Imagination in Childhood* New York
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Trevarthen, C. (1988) Infant's Trying to Talk: How a Child Invites Communication from the Human World. (Söderberg,ed.) *Children's Creative Communication* Lund/Kent

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how happy they were. In rehearsing with the older children I noticed an eagerness to manage to sing the songs. We got another meaning with the singing and pl-ying; it was ment for something for them important: to communicate and play with an other child with the aim to get to know each other.

What is quality in the general music education with young children?

The Thurman paper (Thurman et al. 1987) in the ECME seminar in Kescemet, Hungary, focused my interest towards sound and music as means for the unborned and the newly borned child, in its communication with the mother and the "world". The auditary system and the baby's own soundmaking - "song" - is one necessary part for surviving and getting the spoken language. But music has besides this a special connection with the biological system: it can call for and support feelings. The more we know about how the brain works in its different systems, physically and chemically, the more we understand why music and feelings are so connected. But the mother feels that her baby needs the gentle-sounded singing voice. All her senses are concentrated and observing her baby - and she (as a biologic human being) gives what her baby demands.

Jon-Roar Bjørkvold (1988) has formed a theory about children's spontanous song as our musical mother tongue. One of his references is the research of Colwyn Trevarthen (1988) about the new borned baby as a selfdepending and social individual who's will to live is very strong and who's weapon is the voice "mastering" the mother. The "motherese" is music. Bjørkvold develops an idea of the "ecological child" out of the book *The Ecology of Imagination in Childhood* by Edith Cobb (1977). The thesis is that the child percieve the world through the nerve system and the senses in a way much alike the forms of energy in nature. The pulse of the body and the pulse of the nature are two sides of the same thing. Cobb calls children's ways of understanding through percieving and creating, "biocultural", and that they are anchored in physical life with cultural forms and symbols. In this ecological

EFFECT OF PITCH RELATIONSHIP BETWEEN TEXT AND MELODY IN YOUNG CHILDREN'S SINGING

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Lily Chen

M.A. (Reading), B.A. (Hong Kong)

Department of Music
University of Hong Kong
Pokfulam Road
HONG KONG

ABSTRACT

The purpose of this study is to investigate the relationship between text and the accuracy of pitch singing in young children. The same melody, but with differing texts was taught to three separate groups of children from Hong Kong, aged 3 to 5. One group of Cantonese-speaking children learned the song with a Cantonese text in which the melodic contour does not match the pattern of linguistic tones in the text. Another group of Cantonese-speaking children learned the song with another Cantonese text in which they match. The last group of English-speaking children learned the song with an English text. Out of the recordings, 18 were sampled being two 3-year-olds, two 4-year-olds and two 5-year-olds in each group. It was found that differences in the pitch relationship between text and melody have certain effect on different aspects of children's singing such as pitch accuracy, level of difficulty in learning and singing songs, singing style, singing of different intervals and singing range. This study represents a pilot project which points the way to further research in this area.

BACKGROUND

For many years, the singing of young children has attracted much attention from music education researchers. Research in this area focuses mainly on the factors affecting pitch accuracy of children's singing. They include vocal range of children (Hattwick 1933, Drexler 1938, Wilson 1971, Fox 1983, Rutkowski 1986, Flowers & Dunne-Sousa 1990), pitch/ tonal patterns that children are more capable of singing (Jarjisian 1981, Sinor 1985), pitch discrimination ability of children (Smith 1974, Patrick 1978), harmonic context (Sterling 1985, Stauffer 1985), developmental limitations of children at different ages (Davidson, McKernon & Gardner 1981) and various external effect such as training (Boardman 1964, Richner 1976, Kramer 1986) and vocal modeling (Sims, Moore & Kuhn 1982, Green 1987, Montgomery 1989).

Despite the fact that so many factors have been explored extensively, the effect of language in the text of songs has not been closely examined though some attempts have been made to show its significance. Goetze (1986) has noted that children tend to sing more accurately when they sing with the neutral syllable "loo" than with text, which shows that such effect does exist. Through the use of speech to aid children acquiring better pitch accuracy, the remedial training of Gould (1969) and Roberts & Davies (1976) have proved to be successful. This further assures that the effect of language is quite strong.

The present study aims at investigating the influence of language on young children's singing. Past research has always been involved with children of Western cultures but this research looks at Chinese children in Hong Kong as well. Hong Kong Chinese children are chosen because their mother-tongue, Cantonese, is a tonal language[1] which is very different from non-tonal languages of the West such as English. It has been found that Hong Kong children and English children perceive the expressive

[1]Refer to Appendix 1 for the explanation of the tones in Cantonese.

components in music and language differently (Chen, 1990). This is because in English, pitch is usually used to express the emotional context of speech whereas in Cantonese, pitch serves a grammatical and semantic function by determining the meaning of the words. Therefore, the way English children and Chinese children perceive pitch in music and language are different. Moreover, due to the restricted relative pitch levels of Cantonese, there is certain limitation to the melodic contour of songs created by Cantonese text. Thus, it is interesting to see if the Cantonese children sing their Cantonese songs differently when the melodic contour of the songs corresponds with the relationship of the linguistic tones of the text and when this is not the case. Furthermore, it is controversial that the songs in tonal language and non-tonal language are sung differently by children.

THE PRESENT STUDY

A song with the same melody but differing texts[2] was taught to three separate groups of children in Hong Kong:

Group (A): Cantonese-speaking children from a local kindergarten learning the song with a Cantonese text which is tone-mismatched (i.e. the pattern of the linguistic tones in the text does not match with the melodic contour).

Group (B): Cantonese-speaking children from the same local kindergarten learning the song with a Cantonese text which is tone-matched (i.e. the pattern of the linguistic tones in the text match with the melodic contour).

Group (C): English-speaking children from an international kindergarten learning the song with an English text.

The song was taught in groups. Afterwards, individual singing of each child was recorded. Through the computer, the frequency and amplitude of the children's singing were calculated. Out of the

[2]Refer to appendix 2.

recordings, 18 were sampled being 2 three-year-olds, 2 four-year-olds, and 2 five-year-olds in each group.

This study compares the effect of different pitch relationship between text and melody on children's singing. Children in Group A sing a song which has a contradictory pitch relationship between text and melody whereas children in Group B sing one which has a close relationship. Children in Group C sing a song in which such relationship does not exist. Age difference is also considered. Although the children have to learn and perform the songs required by the researcher, it is not the main aim to see how well they learn such songs. The chosen songs are used only as a mean to analyze children's singing. During the recording, the children were allowed to sing freely and the starting note was not given.

The results[3] were analyzed under four aspects. Firstly, the mean scores of the children in each group was calculated to see how well they sing the learnt songs on the whole. Observations done during the learning process and on the recorded singing were also considered. Then, the individual intervals sung by the children were examined in two ways: how well they can match the required intervals in the songs and what intervals appear more frequently than the others in their singing. Lastly, the singing range of each child was noted.

[3]The results are listed in Appendix 3.

FINDINGS

Certain effect of text-melody relationship has been found on different aspects of children's singing

Pitch Accuracy

From the mean score of the three groups, it is prominent that Group A did better than both Group B and C in achieving the targeted intervals in the songs (significant level at 0.10)[4]. Group B and C showed no significant difference in their performance. This is possibly because the children in Group A put more attention to the pitch relationship of the melody since the text did not make sense. Whereas in Group B and C, the children had diverted their attention to the meaning of the text and to sing the words clearly. This in fact supplements the finding of Goetze (1986) that children sing more accurately without text than with text. On the other hand, there is not much difference between Group B and C because most probably, the fact that whether language is tonal or not, does not have a strong effect on pitch accuracy.

Age difference is also obvious. However, only the difference between Age 3 and Age 5 is a significant one (at the 0.05 level)[5]. This shows that on the whole, children progress in their pitch accuracy of singing learned songs according to their age and a difference of two years in age is a significant one.

Level of Difficulty in Learning and Singing

From the observations done during the learning process and on the recorded singing, it is noted that the children in Group A found it more difficult to learn the song than the children in Group B and C. They needed more repetition to learn the song and made more fault in recalling the text. Contrarily,

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[4]Refer to Appendix 4 for the results of the statistical testings.

[5]Refer to Appendix 4 for the results of the statistical testings.

Group B and C learned more quickly and performed with more certainty. This implies that although pitch accuracy may be affected by the understanding of text in songs, nonetheless, with such understanding, it helps children to learn and sing the songs.

Singing Style

Differences in the singing style between Group A and Group B have been found. It corresponds with the findings in the previous study (Chen, 1992): the tone-matched song is sung with more articulation of the linguistic tones, and creative substitution of words are found in which the children, when they understand the text, replace some words in the text with other words of similar meaning; when they do not understand the meaning, replace with other words of similar tones. Thus, tone-matched songs in fact prove to be more beneficial to children's acquisition of language.

Differences in the singing style between Group C and the other two groups are also noted. The English children tend to sing with more legato and link up certain words in the song whereas the Chinese children tend to cut each word short and take more breath. Such differences may be due to the differences in their languages.

Effect on Individual Intervals

On the whole, the results in small intervals (Major 3rd or below) are better than large intervals (Perfect 4th or above). The required interval that has the best result is unison. The interval with the worst result are Perfect 4th <up> and Perfect 5th <up>. Age difference is very prominent. The older children got better results in large intervals (Major 6th) than younger children and the frequency of occurrence of large intervals (Major 6th <up>, Minor 6th <down>, Diminished 5th <down>) is higher in older children than younger children. Thus, this implies that smaller intervals are easier than larger intervals for the children, and the singing of large intervals can be improved with the increase of age. This can be accounted for by physical factors such as the maturity and control of the vocal cord.

Group differences are also found in certain intervals. Group A and B did better in Major 3rd <down> than Group C. Also, Major 3rd <down> and Minor 2nd <down> had appeared more frequently in the singing of Group A and B than in Group C. On the contrary, Diminished 5th <down>, Minor 3rd <up> and <down> were found more frequently in Group C than in Group A and B. This shows that intervals commonly sung by children of one culture may be different from those sung by children of another culture. It is noted that the famous Minor 3rd <down> interval which has been believed to be the most popular and easiest for children did not prove to be so here. However, it occurred more frequently among the English children than the Chinese children, which suggests that maybe, this 'theory' is not applicable to children of all cultures.

Minor 6th <up> and Diminished 5th <up> had appeared more frequently in Group A than in Group B and C. Maybe, such intervals are more difficult for children, and as discussed earlier, Group A without as much interference of the text as Group B and C concentrate more on pitch singing and are more capable of singing difficult intervals.

Singing Range

Group difference is found, but not age difference. On the whole, the singing range of Group B is greater than Group A and C. Perhaps, this is because the children in Group B made more effort to match the linguistic tones and the melodic contour, thus, making more manipulations of pitch variations. In Group A and C, such effort is either inapplicable or unnecessary.

The pitch range is higher generally in Group C than in Group A and B. This is possibly because English children tend to use their singing voice which is higher than their speaking voice while singing. It is easier for them to differentiate their singing voice from their speaking voice since singing and speech are quite different for them. In speech, there is not as much limitation in pitch level than in singing. However, this is not the case for Chinese children. In Cantonese speech, there are already

pitch differences and they can get a 'melody' simply by speaking. For instance, there are many common Cantonese chants for children which are performed with their speaking voice and yet they contain both 'melody' and 'rhythm'. Therefore, for Chinese children, when the starting note of the song is not given or when they are not reminded to sing with their singing voice, the young children would very naturally sing with their speaking voice.

CONCLUSION

Especially in young children, the influence of language on singing is strong.

> "The overall line of development of singing, which begins with the words, adds the rhythm and finally begins to take note of differences of pitch..."
>
> Moog, 1976.

This study has shown that language indeed has an effect on different aspects of children's singing. With different kinds of languages, the effect is different on children of different cultures. Differences in the pitch relationship between text and melody is a factor that cannot be ignored. Future research intending to develop further this issue is highly recommended.

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Appendix 1

CANTONESE TONES

There are 9 tones in Cantonese. They differ in their pitch levels, rising and falling inflections, long and short durations. They are:

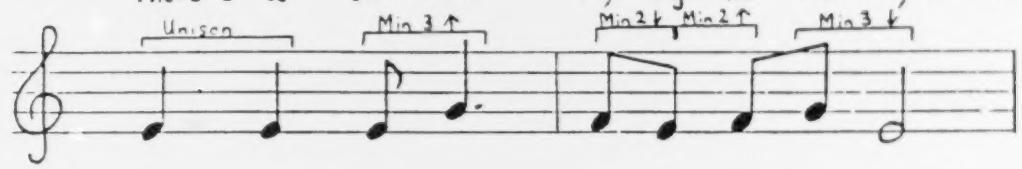
1.	Upper Even	53 o 55	˥ or ˧
2.	Upper Rising	35	˧˥
3.	Upper Going	33	˧
4.	Upper Entering	5	˥
5.	Middle Entering	3	˧
6.	Lower Even	21	˩
7.	Lower Rising	23	˨˧
8.	Lower Going	22	˨
9.	Lower Entering	2	˨

The numerical figures represent from relatively low (1) to high (5) pitch levels and the vertical line represents a pitch axis (Chao 1947).

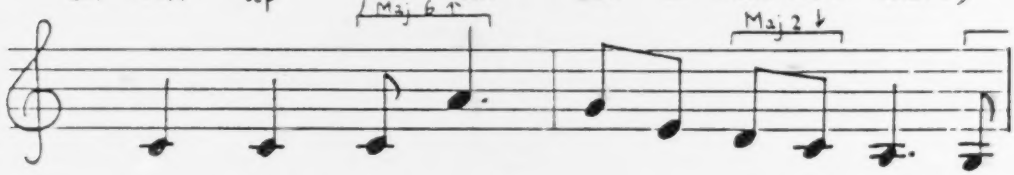
Appendix 2

THE SONG (with three versions of the text)

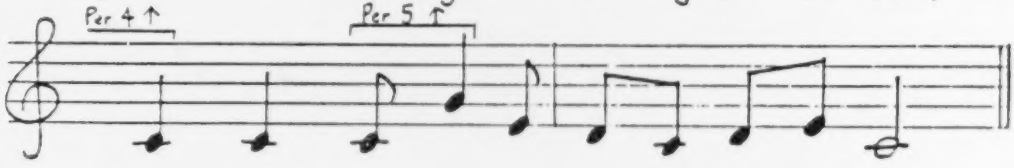
Group A 天(ㄱ) 上(ㄴ) 有(ㄴ) 隻(ㅇ) 雀(ㅇ) 仔(ㄱ) 到(ㄴ) 處(ㅊ) 飛(ㄱ) 但(ㄴ)
Group B 有(ㄴ) 隻(ㅇ) 雀(ㅇ) 仔(ㄱ) 飛(ㄱ) 到(ㄴ) 天(ㄱ) 空(ㄱ) 去(ㅋ) 但(ㄴ)
Group C There's a bir - die fly - ing in the sky, But



(a) 望(ㅂ) 到(ㄱ) 上(ㄴ) 面(ㅂ) 有(ㄴ) 一(ㄱ) 隻(ㅇ) 怪(ㅊ) 物(ㄴ),
(b) 望(ㅂ) 望(ㅂ) 上(ㄴ) 高(ㄱ) 怪(ㅊ) 物(ㄴ) 已(ㄴ) 出(ㄱ) 現(ㅂ),
(c) look up you can see a mon-ster there,



(a) 其(ㄴ) 實(ㄴ) 就(ㅂ) 係(ㅂ) 麻(ㄴ) 鷹(ㄱ) 想(ㄱ) 搵(ㄱ) 食(ㅅ) 雀(ㅋ),
(b) 原(ㄴ) 來(ㄴ) 麻(ㄴ) 鷹(ㄱ) 肚(ㄴ) 餓(ㅂ) 搵(ㄱ) 嘢(ㄴ) 食(ㅅ) 喫(ㄴ),
(c) It's an ea - gle look - ing for its food, So



(a) 雀(ㅋ) 唔(ㄴ) 好(ㄱ) 再(ㅂ) 望(ㅂ) 快(ㅂ) 啲(ㄱ) 飛(ㄱ) 去(ㅂ) 啦(ㄱ)。
(b) 雀(ㅋ) 雀(ㅋ) 唔(ㄴ) 好(ㄱ) 望(ㅂ) 飛(ㄱ) 去(ㅂ) 遠(ㄴ) 啲(ㄱ) 啦(ㄱ)。
(c) lit - tle bir - die don't look and fly a - way.

Appendix 3

RESULTS OF THE STUDY

Mean score of the whole song

Group (A)	28.17
Group (B)	34.17
Group (C)	33.5
Age (3)	36
Age (4	32.67
Age (5)	27.17

Scores were given according to how much they have deviated from the targeted intervals (in terms of the number of semitone difference). Thus, higher the score, greater the difference between the sung and the targeted intervals.

Each interval in the songs was scored except the intervals between phrases (since young children usually do not keep the intervallic relationship between phrases) and the intervals missed by some children (so that each child get the same number of intervals to be scored). Each child had a total score of the whole song and the mean score of each group was calculated.

The results of individual intervals targeted in the songs:

One example of each interval was chosen from the song[6] and the number of children getting the right response at each interval was expressed in percentage.

Intervals	% of correct response	% of response with 1 semitone diff.	% of response with any greater diff.
Major 6th (up)	11%	22%	67%
Perfect 5th (up)	0%	11%	89%
Perfect 4th (up)	0%	31%	69%
Major 3rd (up)	39%	39%	22%
Major 3rd (down)	56%	33%	11%
Minor 3rd (up)	33%	50%	17%
Minor 3rd (down)	22%	50%	28%
Major 2nd (up)	50%	39%	11%
Major 2nd (down)	44%	56%	0%
Minor 2nd (up)	44%	50%	6%
Minor 2nd (down)	33%	50%	17%
Unison	67%	33%	0%

Distribution of the correct responses in each group:

Intervals	Gp A	Gp B	Gp C	Age 3	Age 4	Age 5
Major 6th (up)	0	1	1	0	0	2 *
Perfect 5th (up)	0	0	0	0	0	0
Perfect 4th (up)	0	0	0	0	0	0
Major 3rd (up)	3	0	4	2	2	3
Major 3rd (down)	4	4	2 *	3	3	4
Minor 3rd (up)	3	2	1	1	3	2
Minor 3rd (down)	1	2	1	2	0	2
Major 2nd (up)	2	5	2	3	2	4

[6]Refer to Appendix 2 for the examples chosen to look at each of the targeted intervals.

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Major 2nd (down)	2	3	3	4	3	2
Minor 2nd (up)	4	1	3	1	3	4
Minor 2nd (down)	3	2	1	2	4	2
Unison	3	5	4	5	2	5

Distribution of various intervals in the children's singing

The difference between the average percentage of occurrence of each interval in each group and the percentage of occurrence of each interval required in the model song was calculated to find out what intervals the children had sung more than required and what they had sung less

UP:	**Maj 6**	**Min 6**	**Per 5**	**Dim 5**	**Per 4**	**Maj 3**	**Min 3**	**Maj 2**	**Min 2**	**Unison**
Gp A	-2.8%	+1.5%*	-2.3%	+1.5%*	-1.3%	+2.5%	+2.0%	-7.5%	+12.4%	-5.8%
Gp B	-2.3%	+0.5%	-1.3%	+1.0%	-2.3%	+3.5%	+2.0%	-2.3%	+4.4%	-1.9%
Gp C	-2.3%	+0.5%	-1.8%	+1.0%	-0.9%	+2.0%	+4.0%*	-5.1%	+9.2%	-7.5%
Age 3	-2.8%	+0.5%	-1.3%	+1.0%	-1.3%	+3.5%	+4.1%	-6.4%	+8.7%	-8.0%
Age 4	-2.8%	+0.5%	-2.3%	+2.4%	-1.8%	+0.5%	+2.5%	-3.8%	+10.1%	-3.9%
Age 5	-1.8%*	+1.5%*	-1.8%	0%	-1.4%	+2.9%	+1.5%	-4.7%	+7.2%	-3.4%*

DOWN:	**Maj 6**	**Min 6**	**Per 5**	**Dim 5**	**Per 4**	**Maj 3**	**Min 3**	**Maj 2**	**Min 2**
Gp A	0%	0%	0%	+0.5%	+1.0%	+1.5%*	-3.3%	-9.6%	+11.5%*
Gp B	0%	0%	0%	+0.5%	+2.0%	+1.5%*	-5.2%	-11.9%	+12.5%*
Gp C	0%	0%	0%	+1.0%*	+0.5%	+0.5%	-1.3%*	-8.4%	+9.2%
Age 3	0%	0%	0%	+0.5%	+2.0%	-0.5%	-3.6%	-9.3%	+13.6%*
Age 4	0%	0%	0%	+0.5%	+0.5%	+2.9%	-2.8%	-12.9%	+11.0%
Age 5	0%	0%	0%	+1.0%*	+1.0%	+1.0%	-3.3%	-7.7%	+8.6%

The singing range of each child

		Gp A	**Gp B**	**Gp C**
Age 3	**no.1**	a_3 - f''_4, M6	a_3 - g_4, m9	b^b_3 - g_4, M6
	no.2	g''_3 - g_4, M7	a_3 - f_4, m6	c''_4 - c''_5, 8ve
Age 4	**no.3**	f''_3 - g_4, m9	d''_3 - e_4, m9	c''_4 - c_5, m7
	no.4	b^b_3 - f_4, P5	a''_3 - a''_4, 8ve	c_4 - a_4, M6
Age 5	**no.5**	a^b_3 - f''_4, M6	f''_3 - f''_4, 8ve	b_3 - g''_4, M6
	no.6	a_3 - a_4, 8ve	d''_3 - f''_4, M10	c_4 - c''_5, m9

Range of model song: Major 9th

The distribution of different singing range among each group

Range	**Gp A**	**Gp B**	**Gp C**	**Age 3**	**Age 4**	**Age 5**
Perfect 5th	1	0	0	0	1	0
Minor 6th	0	1	0	1	0	0
Major 6th	2	0	3	2	0	2
Minor 7th	0	0	1	0	1	0
Major 7th	1	0	0	1	0	0
Octave	1	2	1	1	1	2
Minor 9th	1	2	1	1	2	1
Major 10th	0	1	0	0	0	1

Appendix 4

RESULTS OF THE STATISTICAL TESTINGS

In order to see if the differences among the different experimental groups are statistically significant, t-tests were done.

Group (A) versus Group (B)	t=-1.76 (sig. at 0.10 level)
Group (B) versus Group (C)	t= 0.14
Group (C) versus Group (A)	t= 1.68 (sig. at 0.10 level)
Age (3) versus Age (4)	t= 0.97
Age (4) versus Age (5)	t= 1.08
Age (5) versus Age (3)	t=-1.9 (sig. at 0.05 level)

Some Observations on the Singing Development of Five-Year-Olds

by

Peta J White[1], Desmond C Sergeant[2], Graham F Welch[3]

Centre for Advanced Studies in Music Education (ASME), Faculty of Education, Roehampton Institute, London, SW19 5NN, UK

1 Research Officer, ASME; 2 Research Fellow, ASME; 3 Professor of Music Education, Director of ASME

This paper is submitted for consideration for the ISME Early Childhood Music Education Seminar 'Vital Connections: Young Children, Adults and Music' 11-15 July, 1994, University of Missouri-Columbia, USA

Abstract

The paper reports some general findings from the first year of a major longitudinal study into young children's singing development. A central focus during this first year was the design and piloting of a research protocol which would be valid for (a) the longitudinal sample of five-year-olds and (b) the comparative sample aged three to twelve years. The research instrument included specially-composed songs and a range of complementary pitch stimuli. The resultant data provide an indication of five-year-olds' developing singing abilities and also offer an insight into the difficulties inherent in assessing young children's vocalisations within a changing school context.

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Introduction

A major study of singing development in early childhood is being undertaken at the Centre for Advanced Studies in Music Education at the Roehampton Institute. An initial three-and-a-half year study, funded by the Leverhulme Trust, is focusing on mapping the singing development of groups of children aged four to eight years, taking account of the social and ethnic populations from which they are drawn, and seeking to identify those aspects of teaching that might promote or hinder development. Account is also being taken of age, gender, perception, cognition, social context, musical task, and the possible effects of training. Empirical data is being gathered through (a) a longitudinal study of approximately two hundred five-year-olds across their first three years at school and (b) a comparative study of approximately five hundred children aged three to twelve years.

Research method

One of the first challenges facing the research team was to design an appropriate research protocol. Previous (and recent) research into young children's singing development (*eg* Moog, 1976; Davidson *et al*, 1981; Dowling, 1984; Ries, 1987; Goetze *et al*, 1990; Thurman and Klitzke, 1993) suggests that a definition of singing may embrace a number of different forms of behaviour. The protocol would need to allow for individual differences, facilitate comparison across groups and, in addition, be as realistic ('ecologically valid') as possible. A review of previous research revealed a variety of assessment procedures, ranging from recordings of spontaneous singing (*eg* Davidson *et al*, 1981; Hargreaves, 1986), self-invented songs (*eg* Davies, 1986), specially chosen song material (*eg* rounds, folk songs, nursery rhymes, national anthems - see Anderson, 1937; Joyner, 1969; Plumridge, 1972; Buckton, 1982; Welch, 1986) and 'sub-musical' items (*eg* pitches presented either singly, in pairs, or as a series - see Madsen *et al*, 1969; Greer *et al*, 1973; Yank Porter, 1977; Welch *et al*, 1989).

Accordingly, the Leverhulme Project research protocol has been designed to embrace the different kinds of evidence made available by the majority of these approaches. Because of the school-based setting for the research and the projected large sample size, the established protocol focused on pitch development in relation to specific singing tasks (particularly as spontaneous

and self-invented songs are the subject of other contemporary studies.*eg* Fujita, 1990; Minami and Umezawa, 1990; Davies, 1992). The singing tasks were as follows:

(i) glissandi	glides between two, three and five pitches, designed to assess a child's ability to match the *direction* of pitch change (six items);
(ii) pitch patterns	three and five pitches (six items);
(iii) single pitches	(six items);
(iv) songs	specially composed to allow a comparative musical context for items (i) to (iii) (two items).

The proposed protocol also permitted the researchers to access the relative persistence of those features of singing development which had emerged in earlier studies of pre-school children, namely linguistic topology, rhythmic surface, pitch contour and key stability (*cf* Moog, 1976; Davidson *et al*, 1981; Dowling, 1984; Welch, 1986).

In order to reduce the likelihood of the data being affected by random or testing variables, the glissandi, pitch patterns and single pitches were recorded onto an audio tape for use by the researcher during the subsequent individual assessment[1]. The sound sources for the stimuli were an eleven-year-old male

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[1] Because of evidence that young children may have little understanding of linguistic descriptors such as *up*, and *down* in relation to pitch movement (*cf* Crowther *et al*, 1985), a pilot study was undertaken with a class of five-year-olds in a local school to ascertain the likely success of using visual symbols (such as arrows and undulating lines) as the stimuli in the assessment of vocal pitch contour. There was no evidence, however, that the children understood the nature of the contour task, either with the symbols or with the linguistic

chorister from the Chapel Royal, London and electronically-produced sinusoids. The two specially-composed songs were modelled on audio tape by the male chorister for use by the intended subjects' class teachers prior to the assessment sessions. Subsequently, different versions of the stimulus tape were prepared in order to take account of ordering effects.

A group of fifteen Primary schools in the Greater London area were contacted to participate in the study, having been selected so as to provide a mixture of social class, ethnicity and urban/suburban locations. Particular age groups within each school were targeted and the singing ability of each subject was assessed individually in a quiet area away from the classroom.
Before making the individual assessments, the researcher took an opportunity to meet the classteacher and children, and to explain the nature of the research. The teachers had been asked to begin teaching the two project songs in the two weeks prior to the scheduled assessment session. As test materials were embedded in the melodies of the two songs, this allowed some research control over the amount of exposure that each subject had with the song material, with the intention of providing some clues as to the most significant features in song acquisition. The children attended the testing session in pairs, one subject waiting while the other was interviewed. The children were measured for height and weight and, once seated and familiarised with the

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descriptors (or both), and so the decision was made to provide a set of auditory stimuli on tape for the children to imitate. This proved to be more successful.

recording situation, were asked some general questions (for example, about their work in school that day and their favourite song).

Each subject was assigned a code number and the complete interview session was recorded onto digital audio tape for subsequent analysis. This analysis has taken two forms: (i) the musical aspects (such as melodic contour, tonality, phrasing, and general accuracy of response) are rated by a panel of experienced musicians against specified criteria; (ii) basic vocal function and related acoustic output are assessed through the application of various established and specially-designed voice science technologies[2].

General findings and commentary on the five-year-old sample

* *general tendency for vocal pitch responses to be lower than the pitch stimuli, for interval size to be reduced, and for responses to be centred towards the lower part of the vocal pitch range*

When imitating the sound stimuli, subjects had a general tendency to sing at a pitch below the external auditory model (a finding reported elsewhere in the research literature). Subjects also had a tendency to reduce pitch intervals in their sung responses (*eg* singing a second rather than a fourth). There is also evidence of responses becoming most accurate around a notional pitch band of

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2 An analysis of fundamental frequency is undertaken using a revision to the SINGAD software (Howard and Welch, 1993); vocal tract resonances are being assessed using a Sensimetrics SpeechStation; voice source data is being recorded using an electrolaryngograph.

c^4 to e^4 and being increasingly inaccurate the further away the stimuli pitches were from this band. This pitch band is evidenced elsewhere in the research literature as a 'comfortable range' (*eg* Welch, 1979; Ries, 1987), linked to customary vocal register usage (Wurgler, 1990).

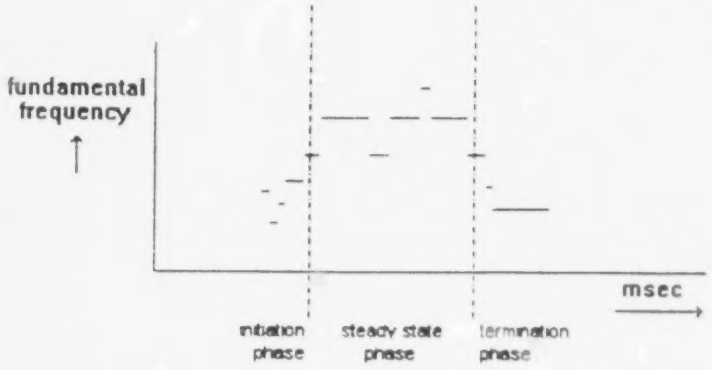
* *the longer the stimulus pattern, the greater the error*

Subjects tended to be most accurate in responding to the two-note stimuli and least accurate in response to five notes. There was also some evidence of children being more out-of-tune when singing pitches at the end of a sequence compared to those at the beginning (*eg* if the same note appeared both at the beginning and the end of a five-note sequence, the former was likely to be sung more accurately than the latter.)

* *three common phases in sung response*

There are three phases which are common to the sung pitches of all the subjects across the various vocal tasks (and which are also in evidence in older, trained singers). First there is an *initiation* phase in which the vocal mechanism is 'primed for action'. A fundamental frequency analysis revealed a tendency for these naive singers to begin their sung response with a glide upwards towards a *steady state* phase (the 'intended' pitch) which is marked by a comparatively greater frequency stability. The sung response is then concluded by a phase of relative instability of frequency, the *termination*

phase. In matching intervals and pitch patterns and in singing the songs, this three-phase pattern is seen to be repeated across successive pitches. However, the term *steady state* is relative, in that the five-year-olds rarely produced one steady frequency but rather tended to vocalise around a general frequency area (even if this could be *perceived* as a single pitch). Schematically, the three phases are as follows:



The criteria for the accuracy of subjects' responses have to be seen in relation to the relative ratio between each of these three phases. Judgements have to be made as to the point in time when the *steady state* begins. With some subjects this is quite difficult because of the general pitch instability in the sung response.

- *definition of singing behaviour is problematic*

In making an assessment as to the accuracy of a subject's singing, one has first to make a judgement as to what the singer 'intended'. For example, responses might be rated as 'accurate' in terms of general pitch direction but 'inaccurate'

in relation to actual pitches. Often the children individually did not seem to know the songs as well as the teachers appeared to believe from their group rehearsals. Where there was a reluctance or inability to sing a song, the subjects would often reproduce the words without the melody, but never the melody without the words. It is possible that, to young children, a concept of *song* or, rather, *melody* does not exist without words, whereas words can exist without melody (*cf* Serafine, Crowder, and Repp, 1984). This finding also supports the notion of the dominance of words in the hierarchy of song development in young children (Davidson *et al*, 1981) and the suggested separation of words and music in the teaching of songs to young children (Levinowitz, 1989).

Some subjects decoded the instruction to copy the sounds from the tape as an instruction to copy those aspects of the sounds that were significant to them. Several, for example, focused on the timbral qualities of the electronically-generated stimuli rather than the pitch. One subject said that he could not copy the sinewave as it was not a human sound. Another attempted to describe what he thought could have made the stimulus sound 'That was a cat; that was a cow.'

Our original intention to provide a contrast between an electronically-generated stimulus and a human voice did not prove to be straight-forward.

Although the Chapel Royal chorister provided an extremely accurate pitch model, several subjects appeared to find his singing socially inappropriate, being far removed from their own experience, and some teachers also commented adversely, perhaps indicating some *a priori* assumptions and attitudes about the nature of singing on the parts of both researchers and teachers. Accordingly, a female vocal pitch model was provided for a further selection of specially-composed songs in the two following years of the study.

* *evidence of inconsistency and varying task attention*

The majority of the five-year-old sample were able to respond to the items on the stimulus tape and to sing the two songs (within the limitations of their current ability). There was evidence, however, of an inconsistency in response by some subjects to the various components of the stimulus tape, perhaps related to varying task attention. The testing procedure could elicit no response at all for several items, then several successful matches. For another subject, a complex task (*eg* a five-note glide) may have been attempted successfully, whereas there may have been no response to a simpler task (*eg* a two-note glide). Some subjects responded well to the glissandi, others appeared to be more comfortable when responding to the specific pitches, whether in patterns or single notes.

Coda

Any description of children's developing singing abilities should address the context in which the behaviours were observed. In the case of the general trends identified in this paper, there are caveats with regard to the particular choice of musical tasks that the children were set and also with the involvement and support that individual teachers were able to provide. The research has taken place against a general background of the implementation of a new National Curriculum, of devolved budgetary control, and an increasing focus on the core curriculum subjects of English, mathematics and science. For many teachers, curriculum time for the arts has been (and is being) constrained and the child-focused early years curriculum is under threat. There has also been the problem of continuity of staff (staff leaving and new staff being appointed) in some of the research schools, as well as occasional difficulties in the intra-school lines of communication between busy headteachers, specialist music staff (where they exist), and the classroom teachers. Inevitably, our research is a 'snap-shot' of singing development but we believe that the general features that we have identified are robust. Comparison with data from the two subsequent years of the longitudinal study will permit us to contextualise better the performance of these particular five-year-olds.

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"Vital Connections: Young Children, Adults, and Music"

11-15 July, 1994

Danette Littleton, Ph.D.
Professor of Music
The University of Tennessee at Chattanooga
Chattanooga, TN 37405
USA

Cross-Cultural Perspectives on Preschool Children's Spontaneous Music Behaviors

Abstract

Play provides the ideal medium for observational investigations of children's music behaviors set apart from direct adult instruction, suggestion, or guidance. Studies of young children as they play freely in a music-specific environment reveal music experiences uniquely child-made and unlike those directed by adults (Moorhead and Pond, 1978, Littleton, 1991).

Interest in spontaneous music-making of same-age, same-sex 4- and 5-year-old children of Japan and the United States prompted this cooperative study. The present study seeks to reveal what , if any, similarities and differences in spontaneous music behaviors may occur between similarly grouped preschool children in Japan and the United States.

Three categories of children's music behaviors (Littleton,1991): a) spontaneous song or chant, b) spontaneous improvisations with musical instruments, and c) spontaneous movement to music; 3 categories of social play behaviors (Parten, 1932, Strickland, 1979): a) solitary, b) parallel, and c) group; and, gender differences were recorded by videotape and later analyzed by time sampling and anecdotal recording techniques. Comparisons of children's spontaneous music behaviors, social behaviors, and gender differences between settings were made and noteworthy similarities and differences reported.

This paper is submitted for consideration for the ISME Seminar or World Congress "Vital Connections: Young Children, Adults, and Music"

11-15 July, 1994

Cross-Cultural Perspectives on Preschool Children's Spontaneous Music Behaviors

Danette Littleton, Ph.D.
Professor of Music
The University of Tennessee at Chattanooga
615 McCallie Avenue
Chattanooga, TN 37403
USA

Prologue

Several pedagogical questions prompted this study:

a) What do young children know, musically? b) Do traditional teacher-directed music activities with young children adequately provide opportunities for child-made music? What is the content of young children's spontaneous music-making behaviors? Are there important similarities and differences across cultures among same-age, same-sex preschool children's spontaneous musical explorations and improvisations?

Inspired by the findings of the Pillsbury Studies, 1941-1951 (Moorhead and Pond, 1978), I began in 1979 collecting observational data by videotape of 3-,4-,and 5-year old children as they played with music in a free play, music-specific setting. In 1991, I compared 4-, and 5-year-old children's social, cognitive, and music play behaviors in a music-play versus a house-play setting. Gender differences in each play category, and choice of play materials between settings were also compared (Littleton, 1991). Results of this study promoted my interest in investigating young children's spontaneous music play behaviors across cultures, specifically Japan and the United States.

Research Questions

The present study, conducted in collaboration with Professor Reiko Hata, Seiwa College, Nishinomiya City, Japan, compared spontaneous music behaviors of 4-, and 5-year-old children playing freely in a music-specific play setting in Japan with children similarly grouped in similarly prepared music play setting in the United States.

Unobtrusive, systematic observations were made on videotape and data collected to answer the following questions:

1 What musical behaviors do 4-, and 5-year-old children in Japan versus 4-, and 5-year-old-children in the United States exhibit in a free play, music-specific setting according to: a) spontaneous song or chant b) spontaneous improvisations with musical instruments, and spontaneous movement to music?

2. What social play behaviors do 4-,and 5-year-old children in Japan versus 4-, and 5-year-old children in the United States exhibit in a free play music-specific setting: according to a) solitary play, b) parallel play, and c) group play (Parten, 1932, Strickland, 1979).

3. What, if any, gender differences occur as 4-, and 5-year-old children in Japan versus 4-,and 5-year-old children in the United States play freely in a music-specific setting?

Relevant Research Literature

From Friedrich von Schiller's introduction of play categories in 1795 as: a) material superfluity, resulting in physical play; and, b) aesthetic superfluity, emerging as aesthetic or dramatic play (1845), numerous theories of play have been presented (Spencer,1896, Groos, 1898, Freud,1920, Hall,1920, Parten,1932, C. Buhler,1937, K. Buhler, 1949, Piaget,1962, Erikson,1963, Vygotsky,1978, Czikscentmihalyi, 1990).

Studies on children's play and its relations to emotional development (Freud 1920, Erikson,1963), cognitive development (C. Buhler,1937, K. Buhler,1949, Piaget, 1962), social development (Parten,1932, Millar,1968), play environments (Prescott,1975, Smith and Connolly,1980), play materials (Van Alstyne,1932, Rubin,1977, Phyfe-Perkins,1980), and gender differences (Sutton-Smith and Rosenberg,1971, Liss,1986) have yielded important findings regarding the role of play in children's emotional, social, and cognitive development.

Few studies have been conducted on the role of play in children's musical development. Most noteworthy were the studies conducted by Moorhead and Pond (1978) at the Pillsbury School. The freedom to explore music as an individual or among peers with a minimum of adult intervention characterized the approach to music

learning for children ages 1 through 7 at the Pillsbury School from 1937-1951. From their observations and analysis of young children's spontaneous music-making, Moorhead and Pond concluded that:

> a) "...free use of varied instruments led to growth in understanding timbre, pitch, vibration, rhythm, tonal relationship and melody;"
> b) "...The children showed increasing power to express their ideas and feelings in spontaneous music and to develop musical communication with each other;" and,
> c)"...songs that adults teach are unlike in all ways to children's own music" (p. 117).

Methodology

Subjects, Settings, Materials

Twenty-four 4-, and 5-year-old children who comprised one kindergarten class on the campus of Seiwa College, Nishniomiya City, Japan were observed as they freely played in a music-specific play setting. Observations by unobtrusive video camera were collected in 8, 20-minute sessions with 2 alternating groups of children: group A (12 children) videotaped at1st, 3rd, 5th, and 7th sessions; group B (12 children) videotaped at 2nd, 4th, 6th, and 8th sessions.

A music-specific play setting was equipped with guitar, electronic keyboards, xylophones, metalophones, marimba, tone bells, triangles, jingle bells, small and large cymbals, small and large drums, castanets, wood blocks, maracas, guiro, music stand, music books, and conductor's baton (Appendix A: music playroom diagram).

Twenty-two 4-, and 5-year-old children who comprised one kindergarten class at St. Nicholas Episcopal Day School, Chattanooga, Tennessee, USA were observed as they freely played in a music-specific play setting. Observations by unobtrusive video camera were collected in 8, 20-minute sessions with 2 alternating groups of children: group A (11 children) videotaped at1st, 3rd, 5th, and 7th sessions; group B (11 children) videotaped at 2nd, 4th, 6th, and 8th sessions.

A music-specific play setting was equipped with violin, guitar, electronic keyboards, xylophones, metalophones, piano, tone bells, triangles, jingle bells, small cymbals and Chinese gong, small and large drums, wood blocks, maracas, guiro, music stand, books, conductor's baton (Appendix B: music playroom diagram).

Design, Data Collection, and Analysis

Quantitative and qualitative methods of inquiry were used to generate information needed to answer the research questions in this study. Time sampling procedures provided frequency counts of selected music play behaviors, social play behaviors and gender. Anecdotal recording of the children's experiences provided descriptive data to augment and enhance the interpretability of the quantitative data. All behaviors for description and analysis were recorded by a non-obtrusive video camera for scoring, examination, and analysis on later playback.

Upon coming to the music play settings, children were told that they would be videotaped as they played. A minimum of two adults were present during the observations: the researcher, operating the video camera, and a preschool teacher who served to monitor behavior as appropriate. A minimum of adult intervention was maintained.

Coding instruments were designed by the researcher for time sampling (Appendix C, Appendix D) and anecdotal recording (Appendix E). At the end of a 1-minute interval, the targeted behavior of an individual child selected at random was observed and recorded. At the end of each subsequent minute, the other children were observed individually in a random sequence, and their behavior recorded, until all the children in the setting had been observed. Observation and recording of behavior continued in the sequence until 24 observations in the Japan study and 22 observations in the USA study were completed. Frequency counts of selected play behaviors, and gender provided numerical data for comparisons.

Collection of anecdotal data was performed by reviewing each tape and making transcriptions of dialogue and music play events. Narrative descriptions in the form of summary notations for each 20-minute tape focused on noteworthy music and social play behaviors within the chosen content limits of this study.

The system of time sampling was tested for reliability by determining a significant degree of consistency of observations between the researcher and coders. The coders were trained to memorize categorical definitions of the targeted music and social play behaviors and gender. Use the coding instruments, observations were made of each play category and gender for 2 complete 20 -minute

tapes. Upon completion, the coding sheets were checked, and a 98% inter-observer rate of agreement was obtained.

Results

Analysis of time-sampling data revealed differences across cultures in the social play of these 2 groups of children: a) more solitary play among Japanese children than USA children; b) more instances of parallel and group play among USA children than Japanese children; c) fewer instances of non-play by Japanese children than USA children.

Analysis of time-sampling data revealed differences across cultures in the music play of these 2 groups of children: d) more instances of vocal, and movement music behaviors among USA children than Japanese children, e) more instances of music instrument playing behaviors among Japanese children than USA children, f) similar music play behaviors of boys in Japan and USA, and g) similar music play behaviors of girls in Japan and the USA.

Anecdotal recordings revealed less dialogue and fantasy play among Japanese children in this study than USA children. In each setting, the presence, attraction, and holding power of selected musical instruments disclosed the children's capability for sustained interest in music-making when allowed to play freely in a music-specific play setting.

Noteworthy excepts from the videotapes will be presented to support these findings.

Conclusion

By observing young children as they play freely with music, unique perspectives on "the mind [of the child] experiencing the world with music" may be acquired (Swanwick, 1988). It is hoped this study will reveal new insights and perspectives across cultures about young children's' musical knowing as they play freely with music.

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6m67cm
1m72cm
Glocken
(tone blocks)
Music book
and Conductor's
Banton
Keyboard
(electronic)
Cymbal
Music Stand
electronic
Keyboard
Big Drum
Middle Drums
Snore Drum
Music Playroom
Guitar
Marimba Bars
Alto Xylophones
Alto Metalophones
Mallets
Two Octave
and Half Metalophone
Mallets
Triangles, Tambourines Big Bell, small Bells
Finger Cymbals, Castanets, Hand drum.
Small Drums, Microphone, (on Shelf)
Autoharp
Wood blocks
Maracas
Guiro
4m47cm
Observation Room
Entrance
Entrance

12'
15'
Soprano, Alto Xylophones,
Soprano, Alto Metalophones,
Soprano, Alto Glockenspiels
and Mallets
Gong
Bass Xylophone Bars
and Mallets
C
C
E
Latin and African
Rhythm Instruments
Conga Drums, Slit-Log Drums
Wood blocks
Maracas, Guiro
Claves
Music Playroom
Entrance
Piano
15'
Music
Stand
Guitar
Autoharp
Violin
Organ
Conductor's Baton
Tambourines, Triangles
Cymbals, Sleighbells
Jinglebells

Music Play Observation Form

Time Sampling Unit: One minute

Session Date
Session Number

Children Present_____
_____

Time Sampling Unit:	Starting Time	Child	Gender M F	Social Behaviors S P G	Materials
1.	10:00 am				
2.	10:01 am				
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Music Play Observation Form

Time Sampling Unit: One minute

Session Date
Session Number

Children Present _____
_____

Time Sampling Unit:	Starting Time	Child	Gender M F	Musical Behaviors V M I	Materials
1.	10:00 am				
2.	10:01 am				
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Music Play Anecdotal Recording

10-Minute Summary Notations

Setting Date
Setting Number Children Present_____, _____
_____, _____, _____,
_____, _____, _____

Starting Time	Verbal Events	NonVerbal Events

WORKSHOP PROPOSAL FOR THE 1994 ISME CONFERENCE

DR.LINDA HIGH
Coordinator of Teacher Education
School of Music
East Carolina University
Greenville, North Carolina 27858
Office 919-757-6851
FAX 919-757-6258

This workshop proposal is submitted for consideration for the Seminar "Vital Connections: Young Children, Adults, and Music" 11-15 July, 1994
University of Missouri-Columbia, USA

NAMES OF PRESENTERS:

Dr. Michelle Hairston, RMT-BC
Chair of Music Education/Music Therapy
East Carolina University
Greenville, North Carolina

Dr. Linda High
Coordinator of Teacher Education
East Carolina University
Greenville, North Carolina

TITLE OF PROPOSED WORKSHOP:

Using Jack Tales And Folk Music From Our American Appalachian Heritage To Involve The Young Learner, Including Those With Special Needs (An Integrated Arts Approach Employing Folk Music, Folktales, and Puppets)

Using Jack Tales And Folk Music From Our American Appalachian Heritage To Involve The Young Learner, Including Those With Special Needs

by
Michelle Hairston and Linda High

ABSTRACT

Research has found that early childhood music teachers do not feel prepared to teach music to students with handicaps. Therefore, the purpose of this presentation is to present strategies for the music teacher to involve the special learner in the early childhood music class. The American Appalachian Culture of North Carolina can be enjoyable for all young children; however, the humor, fun, and wit make it especially appealing to young children with handicaps. Unfortunately, teachers and parents tend to focus on the special learner's disabilities (the stronger the disability, the stronger the focus) rather than involve them, as other children are involved in the primary pursuit of education, to learn about their heritage and other cultures. The Appalachian 'Jack Tales' integrated with folk music, puppets, and Orff-Schulwerk techniques will be adapted with music education and music therapy techniques for the special learner in the early childhood music class.

This paper is submitted for consideration for the Seminar 'Vital Connections: Young Children, Adults and Music'11 - 15 July 1994.

DOING WHAT COMES NATURALLY: GENERATING A MUSIC CURRICULUM FOR YOUNG CHILDREN

by Dr June Boyce-Tillman, M.A.(Oxon), Ph.D., L.R.A.M., Senior Lecturer in Music Education at King Alfred's College, Winchester. Home Address: 108, Nimrod Road, London SW16 6TQ

How do we develop musically? What sort of activities enable us to do that? Do we just invent simpler and simpler rhythmic and melodic exercises the younger the children are? Or are the nature of these activities different at different stages? What do children do with instruments if allowed to explore them freely? From this can we deduce what activities would be appropriate in the area of composition for the youngest children

It was this last question that really concerned me when I embarked on my research project, but many others were answered as a result of it I took a group of some 40 children in a South London Primary School who at the time of starting were aged 3-7 and tape recorded them each once a term responding to some nine musical opportunities.:

1. Making up a pattern on a pair of maracas
2. Making up a pattern on a tambour
3. Choosing an unpitched instrument and making up a pattern for it
4. Making up a pattern for the chime bars E,G and A, using one beater

5 Using two sticks to make up a pattern for a xylophone with a pentatonic scale.

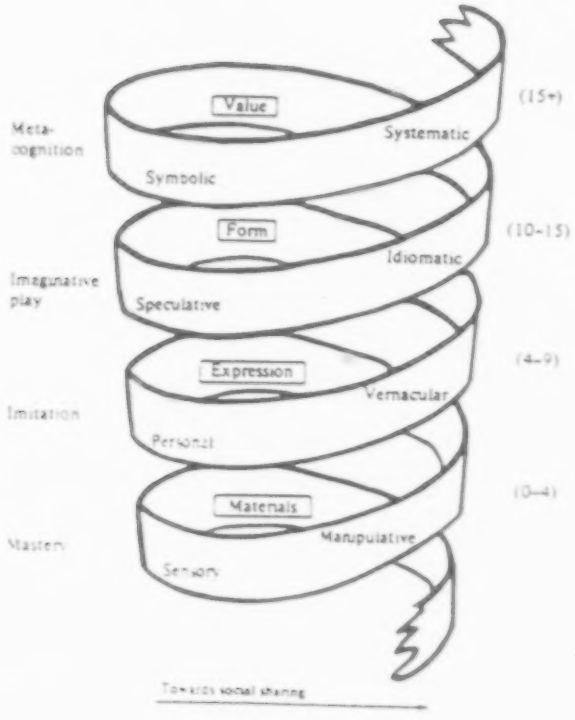
6 Using two sticks to make up a pattern for a metallophone with a scale of C major on it.

7 Saying something like 'It is sunny and I am happy' on any of the available instruments.

8. Making up a piece for a group of players.

9 Making up a song.

At the end of this exercise I had hundreds of compositions/improvisations on tape. From these emerged a spiral model of musical development.



Swanwick and Tillman 1982

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The youngest children in the SENSORY mode were concerned with the impressiveness of sound, especially timbre. A small maraca was gently shaken or a beater rattled on a triangle. A variety of sound sources were tried out such as knocking the wood of the drum. The compositions had the character of unpredictable sound explorations:

AUDIOTAPE (Examples of children's work)

At around four or five the children showed an increasing ability to manipulate sounds in the MANIPULATIVE mode. There was increasing technical mastery and long passages of steady pulse notes were common. Pieces using two beaters were often created from the mechanical alternation of two sticks and the physical structure of the instruments often dictated the shape of the composition:

AUDIOTAPE (Examples of children's work)

A quality of intense personal expression seemed to appear first in the songs of the four year olds in the PERSONAL mode. A song about the sun shining built up to a great climax using repetition and increasing leaps until the child herself appeared to be taken over by a sense of shining. In instrumental pieces increases in speed and dynamics were used to create a climax. There was little structural concern in them and the gestures appeared spontaneous:

AUDIOTAPE (Examples of children's work)

Around seven, there was a marked shift from these more idiosyncratic pieces to some based on more shared musical conventions in the VERNACULAR Mode. Expressiveness was embedded in established structures like four bar phrases and clichés like familiar rhythm patterns.

compositions became shorter and repetitive. Group pieces were based on ostinati.

AUDIOTAPE (Examples of children's work)

With the Vernacular the children seemed to have entered the first phase of conventional music-making and their work was more predictable. This entry into the world of the musical commonplace is essential to the next phase, the SPECULATIVE Mode, when deliberate repetition makes way for imaginative deviation. In the IDIOMATIC Mode the idiosyncratic exploration of surprises gave way to a desire to conform to accepted norms as a particular musical style was chosen, often, although not always, from the world of rock and pop, and attempts were made to work within it. There was often an interest in harmony and a concern for the formal structures of the chosen idiom. The last two swings of the spiralwere not drawn from the children's compositions.In the SYMBOLIC Mode there is a growing sense of music's affective power and a tendency to become articulate about this experience. In the SYSTEMATIC Mode compositions are based on general principles of newly organised groups of musical materials as in serialism.

The spiral model suggests that it is with MATERIALS od sound that the younger children are concerned. The model has proved useful in assessing children's musical development and can also help to generate a curriculum appropriate to their development and one which will enable them to develop into mature musicians later by being based around their own natural instincts.

So with the three to five year olds activities exploring the tone colour of instruments are suggested. There are many ways of doing this. One is to have available a 'sound corner' in which a variety of

sound making equipment is available for the children to explore freely In the formal music session, organisational structures have to be developed to enable these explorations to take place in a group situation. One of these is a game called 'Magic drum'. A tambour is passed around the circle of children while they all recite the rhyme:

Magic drum, magic drum,
What sounds can you make?

Whoever is holding the drum at the end of the rhyme must explore the available sounds as s/he wishes. Here it is played by a group of four year olds with an African style drum. The game can clearly be used for any instrument:

VIDEOTAPE (Children playing this game)

Similar explorations can take place in an activity that I call 'a song with holes in it' as you can see this four year olds doing with the the variety of tone colours available with their hands:

VIDEOTAPE (Four year olds singing a song that contains a space for tone colour exploration)

This is also a very useful song if you have adults and children together. It is a very 'friendly' way of introducing the instruments of the orchestra, for example, when older players can put whole tunes into the slot. Here is an activity in which all can participate at the level of their own ability.

Guessing games are fun and a simple one can be made by collecting containers with removable lids that are all the same, and filling them with different materials-stones, gravel, rice and so on. If two are filled with the same filling the children can find the pair. This is a good

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activity to have available on the sound exploration table, changing the fillings each week.

After tone colour exploration children start to form the question 'How can I organise this sound?' How this is done often depends on what physical action comes easily to each individual child. One common way is in pulse patterns. Anyone who has had responsibility for a young child will know the sound of two saucepan lids being clanged together or a simple shaker being shaken in a steady beat pattern for a long time (if allowed to do so by the carer). Some used to think that this was a pointless activity designed to disrupt, but in fact it is a very important part of musical development. The child is beating out his/her own pulse and this stage is a prerequisite for what was once thought to be the beginning of rhythmic activity - playing in time with the pulse of someone else or a group of people. Such exploration can be disruptive when carried out on a drum, which is why it is wise to have available softer instruments such as shakers of various kinds on the sound making table. This pulse exploration is the bedrock on which future rhythmic security is based. I am sure that pupils who come to learn from me later in life and who can get the relative note values of a piece somewhere near correct but somehow the piece still lacks an underlying sense of rhythm are people, who, if one looked at their early experience, came from backgrounds where such activity was discouraged or even banned.

The ability to do this is closely related to movement skills; so in this mode movement activities are important in the music class. We often have to move from classroom to hall for music lessons and we use that time to walk rhythmically, singing as we go. Walking is quite a

complex activity and such sound producing activities as clapping are easier. Many singing games involve not only skipping or walking in time but also clapping as a happy couple are united and dancing together in the middle of the circle. Here a group of four year olds perform the ending of a game based on The Sleeping Beauty story:

VIDEOTAPE (Children dancing last two verses of 'There was a princess long ago)

One game that I play involves children inventing an action that s/he feels able to do and leading the class band with it. The leader heads the circle doing the chosen action while every one sings imitating the action. Here a group of seven year olds play it:

VIDEOTAPE (A class of seven year olds play 'The Leader of the Band')

The strength of the game is that the leader can choose any action s/he finds easy and this will vary from child to child. It is good to see how young children take to the role of leader. It is possibly the first time in their lives that this has been possible and even if they find it difficult, the fact that it only lasts for a defined length of time makes it possible. It is very valuable for five year olds to be offered a position of authority.

Other rhythmic movement activities include swinging hoops in time to music. In this tape of seven year olds doing it you can see clearly the varying levels of development in the group and also how some children get and then lose the ability to do it rhythmically:

VIDEOTAPE (Children swinging hoops in pairs to Weinberger's Polka from Schwanda the Bagpiper)

What I have outlined here are activities appropriate for 3-6 year olds based on my own research. These sounds are probably familiar to

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people working in many cultures. It is only later (especially in the VERNACULAR that the sound patterns tend to diverge. Most of all it sets out activities that are in line with the children's own musical development in classroom structures that are fun and relaxed. People develop as musicians by being accepted. So many people in the name of music education have been told only where they were wrong and now designate themselves as non-musicians because the activities on offer were inappropriate to their stage of development. Some never made music again. We grow by acceptance and friendship and hopefully we can open up music again to everyone, for it is the birthright of every child in our schools.

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ABSTRACT

Drawing on research carried out in a London primary school,a model of children's musical development is set out that suggests that young children are interested in the Materials of sound before developing an interest in its expressive character or rhythmic and melodic patterns. The implications of this for a music curriculum appropriate to this stage in their development are explored with examples on audio and video tape of pupils in London schools

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Dr. Eleonora Rytakova
Professor
Folk Instruments Department
St.Petersburg Institute of Culture
33 Engelgardsky Pr., Apt.19.
195220 St.Petersburg, Russia
Dr. Nikolai Kravtsov
Professor
Head of the Folk Instruments Department
St.Petersburg Institute of Culture
Office Address: 2/4 Dvortsovaya Nab.,
191021 St.Petersburg,
Russia

ABSTRACT

Sound Mosaic: Young Children's Musical Development Program

In the area of musical education and development which is constantly changing due to social factors inherent in the modern civilization ideas and teaching methods, both new and those which were known before, are now being crystallized. This process results in the necessary adaptation of the entire pedagogical system to the current requirements. It should be emphasized that this process is more or less characteristic of all countries. The present paper deals with the program for young children's musical development "Zvukovaya Mozaika" (Sound Mosaic), which is a result of joint efforts of St.Petersburg Institute of Culture, and the NN-Center research and methodics laboratory program, has influenced pedagogical strategies in the area of musical education in St.Petersburg and some other regions, such as Karelia (Petrozavodsk), Murmansk, Perm.

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Dr. Eleonora Rytakova
Professor
Folk Instruments Department
St.Petersburg Institute of Culture
33 Grazhdansky Pr., Apt.19.
195220 St.Petersburg, Russia
Dr. Nikolai Kravtsov
Professor
Head of the Folk Instruments Department
St.Petersburg Institute of Culture
Office Address: 2/4 Dvortsovaya Nab.,
192061 St.Petersburg,
Russia

This paper is submitted for consideration for the Seminar "Vital Connections: Young Children, Adults, and Music," 11-15 July, 1994.

Sound Mosaic: Young Children's Musical Development Program

The pedagogical systems existing in the 1960-70ss. unfortunately, yielded little effect. The system of musical education developed by K.Orff and introduced in our country by

Professor L. A. Barenbaum and Kodaly's system promoted by D. B. Kabalevsky gained recognition in Estonia, Latvia, and Lithuania but not in Russia.

The methods of musical and aesthetic education worked out by Soviet teachers are efficient enough when applied to musically gifted children. However, it has some drawbacks the most important of which is that it is not always successful when musical development of children with average abilities. Musical schools have excellent teachers, but competitive admittance of 5 or 6 year old children, rigid program, and early specialization characteristic of such schools are rather undesirable. On the other hand, at children's creative/cultural centers, where groups of pupils are usually made up of those children who have failed to be admitted to a musical school, there is no special program for musical education. Still worse, more often than not, such centers lack specialists who have the necessary professional qualifications for teaching such children. The system of musical education used at such centers or clubs is in most cases the same as the one used at musical schools. The attempts they make to modify the teaching process adapting it to their specific needs through extending the course of special instrument, etc. do not solve the problem either. Both in musical schools and in amateur groups musical education is often reduced to developing skills and techniques of playing a particular instrument. Training under a system like this is tough and simply unendurable for many children. All this results in a small number of professional and amateur musicians and a great number of children and adults who reject classical music as something difficult. At an early age (4 or 5 years) a child starts on a monotonous learning process, too

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much resembling his school routine, instead of free music-making which attracts the child to the fascinating world of music. For most people, the ideas of professional performance (understood as "correct" performance for which school education is necessary) and amateur musicianship (interpreted as recreation, fun) are opposed to each other, which has led to a gap between professional and amateur musicians, performers and listeners. This, again, is not a typically Russian problem, it exists in other countries as well. However, since mid-1980s, new forms of musical education, such as studios and aesthetic development centers for children have emerged and the old teaching/education methods had to be replaced. The strategy adopted by the Folk Instruments Department at St.Petersburg Institute of Culture at that time was based on an idea which already existed outside Russia and proved to yield good results. Unique possibilities provided by folk instruments of the peoples inhabiting Russia and suggested by the traditions of musical education on the basis of amateur musicianship which existed in Russia in the 19th century, as well as the most advanced world experience, have resulted in the creation of a system of methods based on the summary of the existing teaching experience and research into the methods of children's aesthetic education through music, which takes into account the difficulties one has to face when mastering the language of music and leans on folk music. The methodics "Musical and aesthetic education of children on the basis of folk instruments" was submitted by the Folk Instruments Department to the Methodical Council of St.Petersburg State Institute of Culture in 1988. This method allows to attract as many children as possible to music. The method is based on playing the folk

instruments which are easy enough for children. improvisation, a succession of associative images. Children are admitted to schools and studios irrespective of abilities and age. All the children are happy to come to our classes and eager to learn, and this is what we consider our most important achievement.

Also in 1988, the Sound Mosaic studio for children's aesthetic development was organized at the Folk Instruments Department. Apart from music, children in this studio are taught art, choreography, foreign languages. However, music is our priority. In their art classes, children make ceramic whistles, spoons, assemble rattles of pre-made plates, try to design and assemble various keyboards, both traditional ones and the new Kravtsov's keyboard. In this way, they familiarize themselves in the world of music from the inside. We have prepared a short video film to show our new instruments and the work of our studio.

The Sound Mosaic studio has practically become a base for students' teaching practice as well as for seminars and continuous education courses intended for teachers who already work. At the same time, in 1988, a special course of lectures was introduced for third-year students of the Folk Instruments Department, "The Methodics 'Musical and aesthetic education of children on the basis of folk instruments'" (30 contact hours). The Department has managed to attract the staff of unique qualifications to this work. Professor Kravtsov N.A., Head of the Department, a Tallinn Conservatory graduate, the creator of a new keyboard, who was brought up on the system of Kodaly, has enriched this program by a number of new ideas: he has become the leader in the creation of the instrumental basis for the new method.

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designing new instruments and implementing new ideas in the area of instrumental culture. Dr.Rytakova E.L., a graduate of St.Petersburg Conservatory, studied under Professor Faina Eryanskaya and attended the lectures delivered by A.L.Ostrovsky and L.A.Barenboum. A.S.Chanilov is a winner of the Russian Musical Instruments Masters Competition and leader of the Zhaleika ensemble. Lectures are read by well-known scholars who are interested in the problems of children's creativity, among them V.Golovin, Doctor of Philology, assistant professor of the Children's Literature Department at St.Petersburg Institute of Culture, and Dr. O.L.Nekrasova-Karateyeva, who has worked with children at the State Hermitage Museum for over 12 years and currently supervises art programs for pre-schools.

The course of lectures aroused great interest among the students, therefore, at the students' request, a parallel optional course was developed which consisted of seminars, classes held in small groups (3 to 5 persons), practical classes, and individual tutorials, 300 contact hours altogether. The course is designed for three years beginning with the second year of studies. Based on the ideas of the 20th century pedagogics, this optional course is supposed to psychologically and practically prepare students for their future activities as music teachers. It is a well-known fact that the abilities necessary for some activities are best developed through participation in this particular type of activities. Therefore, one contact hour a week is devoted to seminars at which students act as teachers at the lesson. The role of the class is played by their fellow students. The curriculum is non-traditional and it must not duplicate the basic curriculum.

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In order to attain the goals set by the optional course, the following subjects were introduced: "The Methodics of Musical and Aesthetic Education of Children on the Basis of Folk Instruments". This subject consists of three parts: 1) Children's musical development at an early stage; 2) Psychological aspects of musical and aesthetic development of pre-school children; 3) Leader/teacher at a musical/aesthetic development studio. This basic subject is supplemented by three other subjects: "The Methodics of Teaching Elementary Solfeggio (the Elementaries of Notification)" "The Methodics of Teaching Folk Instruments" "Children's Folklore and Ethnopedagogics. Fiction for Children." Both of these courses (the special course in the theory and the optional practical course "Musical and Aesthetic Education of Children on the Basis of Folk Instruments") became a basis for a new specialization, training of music teachers for children of the youngest age-group. Due to broad contacts with the children's musical theater "Zazerkalye" and support from the Petersburg composers S. Banevich, V. Uspensky, S. Belimov the interest in the Sound Mosaic program among the students of St. Petersburg Institute of Culture and also among the working music teachers is enormous.

Newly-established creative contacts with the composer S. Slonimsky have resulted in a whole series of cycles written by him for small children. This has allowed us to broaden the repertoire and to realize the new method on the basis of contemporary and highly professional music.

Today, we can say that we have received high quality musical material created at the end of the 20th century by a major composer of today like S. Slonimsky. These pieces reflect the late

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20th century developments in music teaching methods. What is more, children like this music and are able to understand it.

Under new conditions, a specialized research/methodical laboratory, MK-Center, was organized in order to improve the system of training music teachers for children. As a result of joint efforts of St.Petersburg State Institute of Culture, Pre-School Methodics Group of the Institute for Further Education of Teachers, the Teacher Training University, and Music School Methodics Group at the Cultural Program Institute, five international seminars have been held within the framework of the cycle "Musical Education in Present-Day Culture." These seminars aim at familiarizing teachers in St.Petersburg and Russia with the world's latest developments in this area. Our seminars are attended by people from all over Russia as well as other countries (Bulgaria, Yugoslavia).

As well, the system of continuous education for teachers offers a special four month course "Leader/Teacher of a Children's Studio" (150 contact hours). For the past three years, over 600 teachers have taken this course. It means that at least 400-500 schools and pre-schools in Petersburg and other regions have adopted some elements of the new method. The results of our scientific and methodical work have been presented at various workshops and conferences. In this way, practically all who work in the area of musical education in Petersburg have become familiar with this method. For the past few years, over 1,000 children have participated in the pilot program Sound Mosaic. The results are most striking. Children aged 3.5-5 took part in grand concerts at the Glinka Kapella Hall, the municipal cultural center, together with adult performers. But the most important

point is that many pre-schools and schools have started to develop their own author's programs based on the Sound Mosaic program and the methodics "Musical and Aesthetic Education of Children on the Basis of Folk Instruments" (Harmony Center at kindergarten No.130, Sestroretsky Children's Art Center at kindergarten No.17, Multi-Aspect Approach to a Child's Creative Development at Pirometr Plant's kindergarten, The School for Planetary Thinking, Folk Instruments School, the School for Musical and Artistic Development of Children in the town of Kolpino, and others. These programs will be made available at the request of those who are interested, as well as the programs of our special course and optional course. Also, we are happy to say that beginning this year, many music schools in St.Petersburg have opened preparatory groups for children aged over 4, which use all the points of the Sound Mosaic program. Thus, our idea has started to work at all levels.

A video film (5 minutes) includes the record of a lesson at the studio illustrating the basic principles of our method; it also shows the instrumental base and Kravtsov's keyboard.

THE WINDOW OF OPPORTUNITY

Sheila C. Woodward PhD

Research Associate
University of Cape Town

2 Shaw Road Rondebosch 7700
South Africa

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ABSTRACT

Man's inherent musical and linguistic potential requires auditory experience in order to be released. The prolific stage of neurological growth which occurs in pre- and postnatal stages may constitute a 'window of opportunity' for the learning of music. There appears to be a critical development period in which widely varied sound must be received for the central auditory system to mature normally. The long term effect of prenatal stimulation programmes on developmental achievement and intellectual function has been the subject of several recent research programmes, which reflect a downward shift in developmental milestones associated with early stimulation. In striving to provide optimal sound environments for the prenate, neonate and infant, society has the opportunity of cultivating the music learning process during what is possibly the most crucial stage of learning development.

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THE WINDOW OF OPPORTUNITY

Sheila C. Woodward PhD

Musicality is a predetermined human intelligence, as is linguisticity (Gardner 1983). However, the release of man's inherent musical and linguistic potential requires auditory experience. Investigation of the routes to musical competence must span the influences occurring in the pre- and postnatal stages. Whether this early period is 'more propitious for the acquisition of musical skills' than any other, has not been established (Roehmann 1991). Does the prolific stage of neurological growth which occurs in the pre- and postnatal stages constitute a 'window of opportunity' for the learning of music? If musical experience does not occur in this period, does the extent of musical potential remain forever unrealised? A vast field lies unexplored in the need to develop "the kinds of explanatory theories about the causes and origins of excellence in music that will make it possible to design more effective learning experiences" (Howe and Sloboda 1991).

The acquisition of musical language skills requires the same cognitive auditory processing that is essential to speech development. Both functions concern the perception, discrimination, analysis, categorisation, memory and learning of sound components such as frequency, timbre, intensity and duration. It is widely recognised that children who have been exposed to one or more vocal languages from early life achieve an accuracy of intonation and grammatical construction that is generally unequalled in persons receiving such exposure later. On the one extreme, total auditory deprivation in early life is stated to result in irreversible inability to perceive speech sounds" (Northern and Downs 1984).

Language exposure in the period before two years of age appears to be critical. Rehabilitation of the deaf, implemented from two years of age, is shown to result in only partial reversibility in language learning deficits (Lennenberg 1967). A study of institutionalised homeless infants in Lebanon indicated that the intellectual functioning in those adopted after the age of two remained retarded, while those adopted before two reached normal intellectual function (Dennis 1973). These children received minimal stimulation and were fed by bottles suspended on artificial gooseneck supporters. Northern and Downs (1984) compare the situations of a boy raised in the wild who never attained language function (Lane 1977) with the girl locked in a closet for 11 years (Fromkin et al. 1974). It was suggested that the girl's initial twenty-month exposure to family life was responsible for her achievements in language abilities.

> "It seems as if even a short exposure to language, a brief moment during which the curtain has been lifted and oral communication established, is sufficient to give a child some foundation on which much later language may be based" (Lennenberg 1967).

What is the "neurologic, physiologic and psychologic effect of a musically enriched or deprived environment" during the prenatal and postnatal stages? (Roehmann 1991). There appears to be a critical development period in which widely varied sound must be received for the central auditory system to mature normally (Webster and Webster 1977). When deprived of sound stimulation, the central auditory system does not develop normally in

the brain stem. This is evidenced by the profound neural changes in the brain stem auditory nuclei associated with sound deprivation (Webster and Webster 1977). For normal maturity of auditory function to occur one must therefore presume that varied and frequent auditory stimulation is of critical importance. A deprived period may result in an omission in the normal infant's pattern of sequential development, which may be of permanent effect (Rothschild 1966).

Proliferation of neuronal cells occurs in intrauterine life at a rate of 50,000 per second (Diamond 1993). This is unequalled at any other stage of human development. About 50% of these cells die if they don't make functional contact. At birth, the full complement of nerve cells is present in humans. Impairment of brain development can be caused by malnutrition, toxic chemicals, drugs, viruses and teratogens A stimulating or deprived sensory environment is also shown to influence brain development. Research has indicated increased weight gain and cortex mass in the offspring of mothers exposed to stimulating environments during pregnancy (Diamond 1993). Dr Diamond also describes the increased numbers of dendrites protruding from the brain cells.

Experience-dependent learning has been described as involving the "active formation of new synaptic connections" between the nerve cells in the sensory system "in response to the events providing the information to be stored" (Greenough et al. 1987). Despite loss of conscious memory with regards early life, there is little doubt regarding the permanent imprinting of environment on the developing human being.

"It is logically and empirically possible for the infant to experience a painful episode in, for example, the third day of life which could have an effect upon his perception of subsequent events in the same day or in the next, and for these altered perceptions to influence (condition) other experience. Yet by the time several days or years have passed, although none of the experiences would have been remembered specifically, the painful episode and its sequelae nonetheless might have altered the organism in certain special ways" (Lipsitt 1977 p175).

The consequential value of early learning is widely assumed:

"Early handing could be more important than later handling in the sense that it would influence a greater number of subsequent events than would late handling" (Fiske and Maddi 1961 P100).

Learning experiences in early life may have enduring effects on the capacity of the central nervous system to hold information in memory and to capitalise on that capacity for further learning" (Lipsitt 2986 p 174).

The extent to which the fetus and neonate are able to experience music is currently impossible to estimate. However, the maturity of peripheral auditory mechanisms, the activity of the auditory nerve and evidence of cortical response to auditory stimulation

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indicate hearing function by the 25th week (Anson and Donaldson 1973, Gerber 1977, Marty and Thomas 1963, Starr et al. 1977). A wide range of external sounds are shown to be transmitted into the human uterus, including music which, although muffled, retains its essential tonal, textural and rhythmic character (Woodward 1992). Research has indicated more than just a basic neurophysiological auditory perception (such as auropalpebral response) before birth.

> "Infants are not simply passive recipients of experience but appear to be active, searching and selective perceivers" (Bornstein 1989 p 450).

Complex auditory discrimination is shown to be present in the neonate regarding frequency, timbre, intensity and duration of sound (Weir and Lamb 1990, Wormirth et a. 1975, Bridger 1961, Aslnet al. 1983, Brody et al. 1984, Bertoncini et al. 1987, Lecanuet et al 1989, Bartoscuk 1964, Steinschneider et al. 1966, Suzuki et al. 1964, Porges et al . 1973, Millot et al. 1987, Weiss et al. 1988, Weir 1976). These being the basic components of vocal and musical language, it is suggested that the newborn is able to perceive both music and speech, distinguishing these sounds from noise and discriminating their varying components. So acute is the auditory discriminatory ability of the neonate, that only the first 34-44 milliseconds of a consonant or vowel are required to discriminate it from another (Bertoncini et al. 1987).

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The value of prenatal auditory stimulation is a concept which was not born in the twentieth century. The 19th century Chinese document 'The Book of the Great Society' (Ta T'ung) presents the idea of pregnant mothers attending institutions situated in beautiful landscapes. Here they would read, exercise, listen to and make music. The mothers would wear jewellery with bells which would ring as she moved (cited in Blum 1993). Basic psychological and psychophysiological effects of sound on prenates and neonates have been accepted throughout the ages. It is not uncommon to hear of pregnant women needing to remove themselves from a noisy situation because of the strong kicking of the child in her womb. The use of lullabies and rhythmic rocking is common to mothering practice in all cultures. Mothers may have a subconscious tendency to give a very personal form of sound stimulation to their babies. Salk found that 78% of left-handed mothers and 83% of right-handed mothers held their babies on the left side, close to the sound of the heart beat (Salk 1962). Research has validated these mothering practices (Murooka et al. 1976, Rosner and Doherty 1979, Hepper 1988). Newborns exposed to heartbeat sounds cry less, sleep better and gain more weight (Salk 1962). The unborn child who is exposed to constant high noise levels (such as experienced close to an airport) tends to be more active and small for gestational age (Schell 1981, Ando and Hattori 1977). Soothing sound stimulation of the incubated premature infant decreases restlessness and enhances weight gain (Katz 1971, Kramer and Pierpont 1976).

Stimulation in the prenatal period is suggested to influence the development of both neural and behavioural patterns (Reisen 1961). A study of auditory responsivity in incubated

preterm infants determined greater responsivity in those infants who had received 4 to 8 weeks of auditory stimulation than those who had not (Segall 1972). Research has indicated that there is memory of music and sounds heard prenatally. Learning of these sounds is evidenced by recognition, association, and conditioning. There is plentiful anecdotal and empirical evidence of children and adults recognising words, language, sounds and music to which they were exposed during the prenatal stage (Verny 1981, Chamberlain 1993, Hepper 1988, Naidoo 1988, Damstra-Wigmenga 1988, Mehler et al. 1988, Wilkin 1993). Typically, an auditory stimulus will elicit attention, while repetition thereof will, if neither rewarding or threatening, cause the orientation to attenuate. A novel stimulus will again elicit attention. The third trimester fetus is capable of habituating to a repeated sound and dishabituating when the stimulus is altered. The process involves the ability to remember a sound heard previously, to analyse the significance of the sound and to compare the present sound to one heard previously. Complex processing of sound is further indicated by studies of fetal and neonatal modification of behaviour in response to auditory experience (Spelt 1948, Shalev et. al. 1989). Investigations have shown that neonates discriminate the maternal voice from others and alter their behaviour to select it (Querleu et al. 1984, DeCasper and Fifer 1980, Harris 1983, Reznick 1989, Mayes 1989). They will also select recordings of a story which have been read repeatedly during the pregnancy, in preference to a novel story (Decasper and Sigafoos 1983). Some researchers have demonstrated that features of the mother's voice are recognisable in the infant's cry, suggesting early imitation of language (Truby and Lind 1965).

The long term effect of prenatal stimulation programmes on developmental achievement and intellectual function has been the subject of several recent research programmes. Logan (1991) investigates the use of a sonic belt which is attached to the maternal abdomen. The programme begins with repetition of the simple rhythm of the maternal heart beat. The rhythmic sounds become increasingly complex through the set of 16 tapes (designed to be used over a 16-week period). Developmental tests conducted on children exposed to this programme indicate advanced levels of conceptualisation, balance, space orientation, rhythm and intuition. The Ladswich study includes the use of Russian instruments, Western percussion and singing. Far higher numbers of study infants are shown to exceed normal developmental levels than those in control groups. Other programmes also reflect a downward shift in developmental milestones associated with early stimulation (Gros 1990, Van de Carr and Lehrer 1986). The Gros project investigated 983 premature infants, with evaluation extending to 3 years of age. Van de Carr evaluated subjects up to 10 years of age who were exposed to a prenatal stimulation programme which included the use of sound, movement, touch and light (Van de Carr 1993). A prenatal stimulation programme in Thailand is described as being influential on aspects such as height and head circumference, fine and gross motor performance and speech and language acquisition. (Panthuraamphorn 1993). The upliftment of deprived communities through similar prenatal stimulation programmes has recently been investigated in Venezuela (Manrique 1993, Manrique et al. 1993). A sample of 684 subjects was tested intermittently, up to 4 years of age. Using standard tests at appropriate

ages, it was determined that 45% of children in the experimental sample displayed significantly superior developmental and intellectual achievements than the control group.

The indication that an individual child or a whole community of children could be uplifted from social and economic deprivation through prenatal stimulation, has vast implications. As a result of early development of neuronal processing, the child may enter school with a distinct intellectual advantage. The benefits of this, particularly in compensating for social and educational disadvantages, may be far reaching. If, as suggested by the literature, the developmental window for major neurological input does close at two and a half years, then providing an early stimulating environment should be a primary goal of parents. Enlightenment in this regard could be implemented by national health and education bodies. A practical situation in which to provide this training may be the antenatal clinics which many women across the world attend during their pregnancies.

The literature holds a wealth of information on the influences of early sound stimulation on the fetus, neonate and infant. The evidence of auditory discrimination, memory and learning which occurs from the fetal stage indicates the vital role which parents, caregivers and society should play in the provision of optimal sound environments from before birth. It also substantiates the argument that the unborn child is able to perceive, remember and be conditioned to his/her musical environment. The impact of the pre- and postnatal acoustic environment on the development of the 'musical ear' is a subject worth much investigation. No doubt, naturalists will balk at the idea of educating the fetus. But far

from a concept of studiously presenting a prescribed syllabus, the parent need consider this simple reality...the power to withhold or grant a world of music.

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